INTRAPERSONAL CONSTRAINTS AND FACILITATORS TO LEISURE: ISSUES FACING PEOPLE WITH PHYSICAL DISABILITIES

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ABSTRACT

Little research has focussed on factors which relate to the leisure interests of people with disabilities. This study investigated factors which constrain and facilitate the leisure preferences of people with congenital and acquired physical disabilities. Questionnaires were sent to 374 people in New Zealand who had either cerebral palsy or spinal cord injuries, who were between the ages of eighteen and forty five, and who were registered with Workbridge Inc., an employment and job training agency for people with disabilities. Responses to a series of constraint and facilitator statements about preferences within three domains of leisure (passive, outdoor recreation, and sports) indicate that the experience of intrapersonal constraints and facilitators depends on activity type within the passive leisure domain but not within the outdoor recreation and sports domains. Subjects were less likely to report constraints and more likely to recognise facilitators if they liked activities. Subjects who did not have prior experience in an activity were more likely to report constraints and less likely to recognise facilitators. Subjects who had spinal cord injuries were more likely than those who had cerebral palsy to express a concern about other people watching them and report that they would do certain activities because they were unable to do the things they used to. Constraints and facilitators to subjects' most preferred outdoor recreation activities were related to subjects' most preferred sports activities, whereas weaker relationships were found between constraints and facilitators based on passive leisure and outdoor recreation, and in passive leisure and sports activities. For subjects' most preferred and least preferred outdoor recreation activities, constraints and facilitators were related, as were the majority of constraints and facilitators to passive leisure activities. The majority of constraints and facilitators to subjects' most preferred sports activities were not related to sports activities they least preferred.

Keywords: intrapersonal constraints, intrapersonal facilitators, cerebral palsy, spinal cord injuries, passive leisure activities, outdoor recreation, sports activities

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Chapter I: Introduction

Crawford, Jackson, & Godbey (1991) and Kennedy, Smith, & Austin (1991) both developed models detailing constraints to involvement in leisure activities. The models suggest that there are three different types of constraints to leisure: intrapersonal, interpersonal, and structural. Research to date has focussed largely on constraints such as time, facilities, ability, awareness or opportunity (Raymore, Godbey, Crawford & von Eye, 1993), factors which may impede participation once a preference for a leisure activity has been formed. Little attention has been paid to those factors which may constrain or facilitate the leisure preferences of people who have physical disabilities. The purpose of this study was to investigate how intrapersonal constraints and facilitators may be related to the leisure preferences of people with cerebral palsy and spinal cord injuries.

People with physical disabilities may be subject to a number of intrapersonal constraints that do not affect the non-disabled. People with physical disabilities may also believe that they have few personal qualities which help them become involved in particular leisure activities. This study aimed to investigate intrapersonal constraints and facilitators associated with preferences for leisure activities as experienced by people who have physical disabilities.

According to Crawford and Godbey (1987), intrapersonal constraints "involve individual psychological states and attributes which interact with leisure preferences rather than intervening between preferences and participation" (p 122). People with disabilities experience difficulties when attempting to take part in valued leisure activities (Luborsky, 1994), many difficulties may be associated with a lack of ability to overcome intrapersonal constraints. Individuals may possess attributes which enhance the formation of leisure preferences, attributes known as intrapersonal facilitators in this study.

Therefore, the interests, personal and psychological characteristics of people with physical disabilities should be taken into consideration when designing recreation programmes (Coyle & Kinney, 1990; Kennedy & Smith, 1990). A review of the literature pertaining to intrapersonal constraints to leisure facing people with physical disabilities suggested that issues including physical appearance, perceived

self-skill, lack of competence, judgements by others, psychological dependency, challenge/skill balance, and social comfort, may interact with leisure preferences.

The literature reviewed for the present study highlights the existence of a wide and diverse range of leisure activities. A similar typology of leisure activities to those used by Jackson (1983; 1994) and Jackson and Searle (1983) will be adopted in this study. Passive leisure, outdoor recreation, and sports activities will be the three domains of leisure focussed on. Within domains, activities may range from passive to active, indoor or outdoor, and competitive to non-competitive (Iso-Ahola, 1980). The experience of intrapersonal constraints and facilitators may vary in reference to different types of activities within each leisure domain. The present study addresses this issue by determining if type of activity is associated with level of constraint or facilitator within each domain of leisure.

Leisure activities provide enjoyment (Heywood, Kew, Bramham, Spink, Capenerhurst, & Henry, 1995; Kelly, 1990; Kraus, 1994). People may be more likely to form preferences for activities they know they will enjoy rather than activities that are not enjoyable. An activity is most often enjoyable if the challenges of an activity are in balance with the skills of the participant (Csikszentmihalyi, 1975). Enjoyment of activities may be associated with how much people like activities and their experience of intrapersonal constraints and facilitators to activities they do and do not like.

Kay and Jackson (1991) and Shaw, Bonen, & McCabe (1991) found that the reporting of constraints was more frequently associated with higher rather than lower participation. Previous involvement in an activity may expose people to constraints whereas people may perceive different constraints if they have no previous involvement in particular activities.

Type of disability may be associated with level of constraint and facilitator. People who have cerebral palsy may experience different constraints and facilitators to those who have spinal cord injuries. Having cerebral palsy may result in isolation at a young age (Battle, 1974), being dependent on the medical profession (Nosek, 1984), being embarrassed and fearful of seeking assistance (Wright, 1983) and being limited by energy levels (Becker & Schaller, 1995). People who acquire spinal cord injuries often have to make major physical, social, and psychological adjustments to changed abilities (Frank, Van-Valin, & Elliot, 1987), are susceptible to bouts of

depression (Coyle & Kinney, 1990; Mueller, 1962), face intrusiveness and over-protection from others (Elliot, Herrick, Patti, Witty, Godshall, & Spruell, 1991) and lose the ability to do many things that they used to do (Kleiber, Brock, Lee, Datiillo, & Caldwell, 1995). Due to individual difficulties faced by people with cerebral palsy and spinal cord injuries, constraints and facilitators may also differ within leisure domains.

The present study investigates whether liking an activity, previous involvement, and type of disability are associated with level of constraint and facilitator within three domains of leisure.

Previous studies (Jackson, 1983; 1994; Jackson & Searle, 1983) shared a common typology of leisure activities. The present study adopts the same typology by focussing on passive leisure, outdoor recreation, and sports activities. Characteristics of these leisure domains differ in that some activities require low levels of physical exertion and provide entertainment (Cushman, Laidler, Russell, Wilson, & Herbison, 1991), others are based in the natural environment (Iso-Ahola, 1980; Kraus, 1994), while others have clear performance standards, are competitive, require physical exertion, and lead to the attainment of rewards (Heywood et al., 1995; Hess, Markson, & Stein, 1988). Intrapersonal constraints such as perceived lack of ability (Seligman, 1975), low self-esteem (Datillo, Datillo, Samdahl, & Kleiber, 1994; Rosenburg, 1989), dependence on and perceived attitudes of others (Kennedy et al., 1991) may have a closer association with certain leisure activities than others. Jackson (1994) recommends that constraints research should include activity-based variations as the perceived importance of constraints may differ depending on the type of activity in question. The perceived importance of facilitators may also differ depending on activity type. The present study seeks to determine whether the experiences of constraints and facilitators in one activity domain are related to those in another.

Intrapersonal constraints involve psychological states and attributes of individuals which interact with leisure preferences (Crawford & Godbey, 1987). Factors such as shyness, anxiety, and depression may relate to people's interests in some leisure activities and not in others. People may not develop an interest in an activity because they are too shy or become anxious about joining in whereas others

may have an interest in an activity but are constrained by the perception that they might become anxious or depressed when becoming involved.

Subjects in the present study were required to rank activities in order of preference and then respond to sets of identical constraint and facilitator statements in reference to the activities they most preferred and least preferred for each domain of leisure. The present study sought to determine whether the experience of constraints and facilitators to people's most preferred activity are related to the constraints and facilitators for their least preferred activity within each domain.

Purpose of Study

The current study aimed to investigate how intrapersonal constraints and facilitators may be associated with, or related to, the leisure preferences of people who have cerebral palsy or spinal cord injuries within three leisure activity domains. The research questions addressed in this study were:

1. Is type of activity associated with level of constraint or facilitator within each domain of leisure?
2. Are liking an activity, previous involvement, and type of disability associated with level of constraint within each leisure domain?
3. Are liking an activity, previous involvement, and type of disability associated with level of facilitator within each leisure domain?
4. In general, is the experience of constraints or facilitators in one activity domain related to another, regardless of activity type?
5. In general, is the experience of constraints and facilitators in people's most preferred activity related to the constraints and facilitators for their least preferred activity within each domain of leisure?

Chapter IV will discuss the outcomes of the study with reference to the research questions.

Delimitations

This study was delimited to the subjects who were involved in the study. Findings from this study will not be generalisable to all people with cerebral palsy and spinal cord injuries due to the population sourced.

The meaning of the word "leisure" is delimited to the activities included in the questionnaire, listed below.

Definitions

This study used a number of terms, their definitions important to the understanding of the study. Definitions were taken directly from the literature where appropriate or constructed for the purposes of this study based on the literature.

Leisure: A range of activities in which people participate during their free time. For the purposes of this investigation, leisure activities were divided into passive, outdoor recreation, and sport and included:

Passive - going to the movies, reading, playing passive games, being a spectator at sporting events, and watching television.
Outdoor Recreation - tramping, fishing, skiing, kayaking, and rock climbing.
Sport - tennis, bowls, swimming, running, and pool/snooker/billiards.

Constraint: Factor which limits or inhibits participation in a leisure activity (Raymore, Godbey, Crawford, & von Eye, 1993).

Intrapersonal Constraint: Crawford and Godbey's (1987) definition of intrapersonal constraint was used as this study. It defines an intrapersonal constraint as a constraint which involves "individual psychological states and attributes which interact with leisure preferences rather than intervening between preferences and participation".

Facilitator: Factor which enhances or promotes participation in a leisure activity.

Intrapersonal Facilitator: Personal factor or resource which interacts with leisure preferences rather than intervening between preferences and participation.

Disability: "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (WHO 1980, p 143). Although this is a medically orientated definition, it serves to highlight the distinct difference between a disability and an impairment.

Impairment: "any loss or abnormality of psychological, physiological, or anatomical structure or function, which may result in a disability" (WHO, 1980, p 47).

Congenital Disability: A disability dating from or soon after birth.

Acquired Disability: A disability resulting from injury or disease during life after birth.

Method

A quantitative approach was taken in this study with a questionnaire being used for data gathering purposes. Questionnaires were sent to 374 people who had cerebral palsy or spinal cord injuries, were between the ages of 18 and 45, and were listed with Workbridge as of October 1995. Questionnaires consisted of three booklets, each focussing on a different domain of leisure. Subjects were required to respond to sets of constraint and facilitator statements in relation to activities they most and least preferred within passive leisure, outdoor recreation, and sports activity domains. Statistical analyses were conducted to determine associations and relationships based on the reporting of constraints and facilitators related to the leisure preference of subjects.

Limitations

There are limitations to the generalisability of the results of this study. This study was limited by the population used - the entire population of Workbridge Inc clients who had cerebral palsy or spinal cord injuries and who were between the ages of 18 and 45. A non-random sample was obtained as not all people responded to the survey. People who participated in this study were listed with Workbridge, an employment and job training agency for people with disabilities. Not all people with cerebral palsy or spinal cord injuries between the ages of 18-45 in New Zealand would have been listed with Workbridge. The proportion of the general population

with cerebral palsy and spinal cord injuries may have been different to that in this study. Statistics with which to make a comparison were unavailable.

Readers should also note that this study was limited by the size of the sample. One hundred and forty seven people responded to the survey. The low number of subjects affected the reliability of statistical tests, necessitating careful interpreting of results.

Overview of Structure

Chapter II discusses the literature relating to intrapersonal constraints and facilitators to leisure faced by people with disabilities. The review of the literature begins with a description of leisure and its benefits, then details the two models of leisure constraints on which this study was based. Intrapersonal constraints are discussed with particular reference to people with physical disabilities. A distinction is made between congenital and acquired disabilities, and further examples of intrapersonal constraints for each type of disability are given. The methods used for gathering data for the current study are discussed in detail in Chapter III. Chapter IV gives details of the results of statistical analyses conducted in order to address the five research questions. The results of each statistical test are presented following a description of why each test was used and how it is interpreted. Discussion of the results and their interpretation constitutes Chapter V and conclusions are given in Chapter VI.

Chapter II: Review of Literature

This chapter reviews the literature pertaining to intrapersonal constraints and facilitators to leisure participation faced by people with physical disabilities. The chapter begins with a discussion of the concept of leisure, its benefits and the different types of leisure previously studied. Leisure constraints research will then be discussed and two models of leisure constraints introduced, one which relates to general leisure constraints, the other specifically to people with disabilities. A discussion of the importance of intrapersonal constraints will be followed by a description of facilitators to leisure, and in particular, intrapersonal facilitators. The implications of physical disability will then be presented including definitions of impairment, disability, and handicap. This chapter concludes by distinguishing between congenital and acquired disabilities and introducing the two disabilities under study here, cerebral palsy and spinal cord injury.

What is Leisure?

Leisure theorists believe that freedom of choice in an activity and the achievement of a state of mind where day-to-day concerns are forgotten are the hallmarks of a leisure experience (Iso-Ahola 1980; Kelly, 1990; Kraus 1994). Leisure is seen as a time when individuals are free to choose activities which will provide enjoyment, accomplishment, catharsis and "self-actualisation - achieving one's fullest potential as a human being" (Kraus 1994, p.10). Leisure experiences also provide a means of achieving socialisation as well as allowing opportunity for autonomy and personal development (Heywood, Kew, Bramham, Spink, Capenerhurst, & Henry, 1995). Leisure may be conceptualised as time, experience, and/or activity.

In the present study, leisure is conceptualised as activity. Leisure activities are numerous and diverse. Some are playful and pleasurable, and may provide a contrast to work (Heywood et al., 1995; Kelly, 1990; Kraus, 1994). Iso-Ahola (1980) contended that leisure activities range from passive to active, can take place indoors or outdoors, and can be competitive or non-competitive.

Characteristics of passive leisure activities, according to Cushman, Laidler, Russell, Wilson, & Herbison (1991), include the promotion of social interaction,

entertainment, and low levels of physical exertion. Passive leisure includes activities like playing games like chess, watching television, and reading (Cushman et al., 1991, Heywood et al., 1995), the latter two of which were found to be the most popular leisure activities in the 1991 Life in New Zealand survey.

Outdoor recreation activities occur in, and depend on, the natural environment (Iso-Ahola, 1980; Kraus, 1994) and are often physically exerting. Examples of outdoor recreation activities include hiking (Heywood et al., 1995), fishing, horse riding (Heywood et al., 1995, Kraus, 1994), hunting, rock climbing, and canoeing/kayaking (Kraus, 1994).

Sports are leisure activities characterised by clear performance standards, competition, physical exertion, and the attainment of rewards (Heywood et al., 1995, Hess, Markson, & Stein, 1988). Examples of sports are running, soccer, rugby, tennis, cricket, basketball, bowls, and swimming (Heywood et al., 1995). Swimming was one of the most popular sports activities in New Zealand in 1991 (Cushman et al., 1991).

Six categories of activity were used in Jackson's (1983) research on activity-specific barriers to recreation participation. These were exercise orientated activities, self propelled outdoor recreation activities, team sports, resource based recreation, social and passive activities. Further, Jackson & Searle (1983) investigated social/passive activities, outdoor recreation, and sports activities, while more recently Jackson (1994) studied mechanised and non-mechanised outdoor recreation, physical health and exercise, and hobbies and home based activities.

The three studies mentioned above share a common typology of leisure activities based on three categories; passive leisure, outdoor recreation, and sports activities. The same typology of leisure activities will be used in the present study.

Involvement in leisure activities enables the realisation of many benefits, which may vary according to the nature of the activity.

Benefits of Leisure

The wide range of benefits associated with leisure participation have been listed by Kelly (1990) as: self-expression, companionship, physical health, contrast to work, meeting new people, building relationships, and testing oneself in risk or competition. According to Kelly (1990), no one should be excluded from leisure as

it provides opportunities to grow and develop. Kraus (1984) concurs stressing that "leisure has great potential for making our lives rich and exciting" (p. 48).

People with disabilities have the same human needs as everyone else; the recreation and leisure component is one part of life which provides opportunities for realising achievement, relaxation, respect, pride and self-worth (Kraus, 1994; Paciorek & Jones, 1994; Schleien & Ray, 1988; Croucher , 1981; Stewart, 1981; Witt, 1979; Buchanan , 1977; Guttmann, 1976). Despite the difficulties often experienced by people who have physical disabilities in participating in leisure activities, the leisure interests of these people can be just as diverse as those of the non-disabled. Reading, watching sport, boating, athletics, skiing, swimming, track and field, weight-lifting, archery, billiards, tennis, and fishing, are examples of leisure activities in which people with physical disabilities are interested, and in which they participate.

To ensure people with disabilities experience the benefits of leisure, their interests, preferences, personal and psychological factors should be taken into consideration when designing recreation programmes (Coyle & Kinney, 1990; Zoerink, 1989; Wehman & Schleien, 1981). Coyle and Kinney (1990) state that recreation programmers are hampered in their efforts due to the scant number of studies that document the leisure characteristics of people with physical disabilities. Recreation personnel may design programmes for people with disabilities without considering these people's interests. Without such consideration, programmes may not meet the expectations of users. Determining personal and psychological factors which either constrain or facilitate the leisure interests of people with disabilities could assist in the provision of appropriate leisure programmes.

The present study contributes to the understanding of the leisure characteristics of people with disabilities by investigating personal factors which constrain and facilitate leisure interests.

Although leisure theorists identify a number of benefits associated with leisure participation, not all people are able to gain these benefits due to factors which constrain their involvement.

Constraints on Leisure

The benefits gained from participating in leisure activities are accrued by negotiating constraints (sometimes referred to as barriers) which act to restrict involvement (Raymore, Godbey, Crawford, & von Eye, 1993). A *constraint* has been defined as "a subset of reasons for not engaging in a particular behaviour" (Jackson, 1988, p. 69). Constraints tend to affect some people more than others and indicate something that may be overcome or negotiated (Crawford, Jackson, & Godbey, 1991; Kennedy, Smith, & Austin, 1991). Barriers, however, are viewed as being permanent and lasting (Crawford et al., 1991). The present study views constraints and barriers as being negotiable and only uses the term constraints.

Leisure constraints research has increased over the last two decades with studies focussing on issues such as lack of interest, facilities, time, funds, ability, gender, awareness, or opportunity (Dattilo, Dattilo, Samdahl, & Kleiber, 1994; Shaw, Bonen, & McCabe, 1991; Shaw, 1991; Henderson, Stalnaker, & Taylor, 1988; Jackson, 1983; Witt & Goodale, 1981; Romsa & Hoffman, 1980). These studies used different methodologies so comparison of results is difficult (Raymore et al., 1993). More specific constraints on leisure include a lack of partners, family commitments, lack of information, lack of transportation and physical ability (Searle & Jackson, 1985). Important constraints to women's leisure have been found to include physical safety, security, and body image (Henderson et al., 1988; Henderson, 1991).

Jackson (1990) contended that earlier constraints research neglected to investigate reasons why people did not wish to participate in leisure activities; people who did not wish to participate were thought to exhibit no interest in participating and researchers did not interpret a lack of interest as a possible result of constraints on leisure. An alternative interpretation of a lack of interest may reside in the fact that people may wish to participate in an activity but are unable to because they face constraints such as shyness or anxiety. A lack of interest should not be automatically interpreted as people being unwilling to participate in leisure activities.

Raymore et al. (1994) support the views of Jackson (1990) by suggesting that previous research has neglected constraints on beginning a new leisure activity. Recent research suggests that the experience of constraints does not always result in non-participation (Henderson et al., 1995; Raymore et al. 1993, 1994; Samdahl &

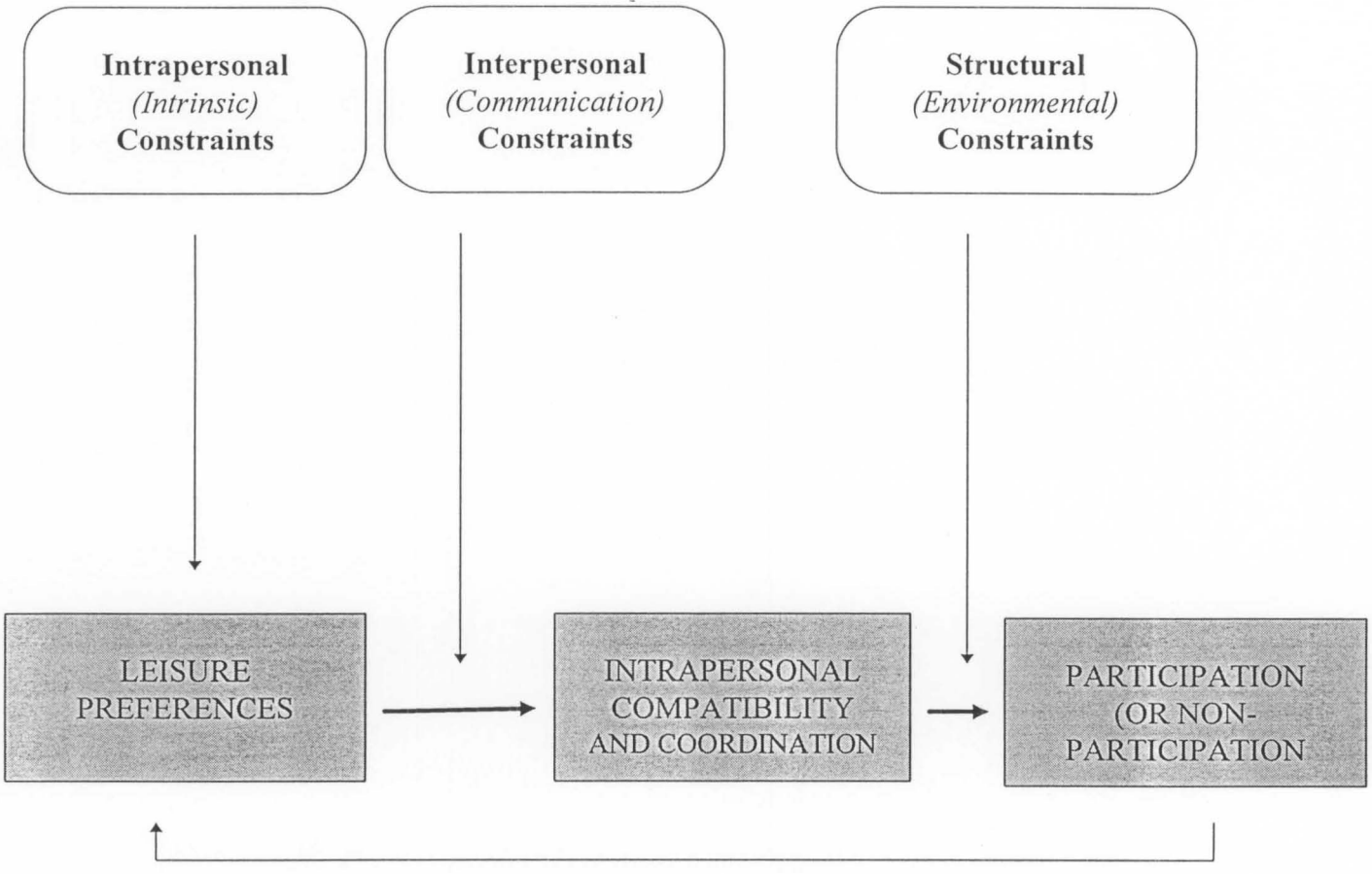
Jekubovich, 1993; Scott, 1991). People may not become aware of many constraints until they actually develop an interest or attempt to participate in an activity. Any act of participation potentially exposing individuals to constraints (Kay & Jackson, 1991). Similarly, Shaw, Bonen, & McCabe (1991) found that the reporting of at least some perceived constraints to leisure activities was more frequently associated with higher rather than lower participation.

Leisure constraints research has focussed on a broad range of activities. Jackson's (1983) study suggested that differences in the perceived importance of constraints to participation occur depending on the type of activity in question. Therefore, leisure researchers need to include activity-based variations when investigating leisure constraints (Jackson, 1994).

People with disabilities in particular may be subject to a number of subtle obstacles to leisure participation as well as the obvious, physical constraints. These people may not recognise the reasons for their limited participation (Schleien & Ray, 1988) until they participate in activities of their own choice. Becoming shy or anxious in a crowd, or a perceived lack of skill may restrict participation initially - factors which may only be realised and overcome once an individual tries an activity for the first time.

Leisure researchers have developed models which assist in the understanding of constraints. Models developed by Crawford et al., (1991) based on earlier work of Crawford and Godbey (1987) and Kennedy et al., (1991), contribute to this understanding. Kennedy et al's (1991) model of barriers to leisure relates specifically to people who have disabilities, whereas Crawford et al's (1991) model of constraints was designed to be applicable to all people regardless of ability. The two models can be combined effectively to gain an understanding of the factors which may act as constraints on leisure participation for people with disabilities (see Figure 1). The two models have been combined for the present study as the barriers proposed by Kennedy et al. (1991) are considered to be negotiable and contribute to an understanding of constraints facing people with disabilities.

Kennedy et al. (1991) contend that there are three major categories of barriers. The first of these are *intrinsic barriers,* which result from a person's own limitations and may be associated with a physical, psychological, or cognitive disability. Intrinsic barriers align with Crawford et al's. (1991) *intrapersonal* constraints.



Derived from: Crawford et al. (1991) and Kennedy et al. (1991).

Figure 1. A Model of Leisure Constraints.

Intrapersonal constraints "involve individual psychological states and attributes which interact with leisure preferences rather than intervening between preferences and participation" (Crawford & Godbey, 1987, p. 122). Examples of these constraints include "stress, depression, anxiety, religiosity, kin and non-kin reference group attitudes, perceived self-skill and subjective evaluations of the appropriateness and availability of various leisure activities" (Crawford & Godbey, 1987, p. 122). Raymore et al. (1993) state that leisure preferences are formed following the negotiation or absence of intrapersonal constraints. This concept of negotiation is supported by Jackson and Rucks (1995) who maintain that people will not react passively to constraints by not participating but will negotiate through them. Leisure constraints are viewed as forces in people's lives that must be negotiated successfully if leisure involvement is to occur (Scott, 1991).

Intrapersonal constraints may be highly relevant to people with disabilities. People with disabilities may tend to be more shy and self-conscious than their non-disabled peers because of their perception that others will be judgemental or patronising towards them. Anxiety and stress could be caused by the hostile reactions of others or by activities being beyond the abilities of people with disabilities (Henderson, Bedini, Heght, & Schuler, 1995; Kennedy et al., 1991). If situations like these arise, leisure preferences are less likely to be formed. Being able to overcome or reduce intrapersonal constraints may be especially important for people with disabilities.

Kennedy et al. (1991) proposed that communication barriers block interaction between the individual and his or her social environment. Communication barriers are aligned with the *interpersonal* constraints proposed by Crawford et al. (1991). Interpersonal constraints result from "the relationship between individuals' characteristics" (Crawford & Godbey, 1987, p. 123). An individual may experience such a constraint if they are unable to find someone with whom they can participate in an activity, or if there is something about the co-participants which constrains involvement (Raymore et al., 1993). Participation in a leisure activity may be facilitated by having a `buddy' who can assist the person with a disability in their endeavours. A personality clash or disagreement with a co-participant may also restrict participation.

Environmental barriers, according to Kennedy et al. (1991), are external forces that impose limitations upon the individual with a disability. These barriers may be considered to be aligned with *structural* constraints proposed by Crawford et al. (1991). Structural constraints refer to "intervening factors between preference and participation" (Crawford & Godbey, 1987, p. 124). Examples of structural constraints include financial resources, and availability of time and opportunity. The absence, negotiation, or elimination of these constraints will lead to participation since preferences for the activities have been formed earlier (Crawford & Godbey, 1987).

Structural constraints may be particularly relevant to people with disabilities as physical obstacles such as hills, streams, trees, snow, narrow doorways, and steps, may constrain leisure participation. Careful prior planning is required to minimise or avoid these constraints (Kennedy et al., 1991). Other structural constraints may include income, transport, and time (Crawford et al., 1991). Although particularly relevant to people with disabilities, structural constraints will not be investigated in the present study as the focus of the study is factors relating to leisure preferences rather than factors which intervene between preferences and participation.

Henderson et al. (1995) conducted a qualitative study which investigated the negotiation of leisure constraints by women with physical disabilities. They found that apart from disability, parenthood, work and unemployment acted as constraints to subjects' leisure. The women reported that leisure was fun and a time to do what they wanted, offered opportunities for exercise and therapy, and comprised of a large number of passive activities centred around the home. The constraints to leisure experienced by the women in the study were considered the same as those experienced by other women, but magnified. Constraints faced included energy deficiency, time shrinkage, lack of opportunities and choice, dependency on others, and physical and psychological safety (Henderson et al., 1995).

For the purpose of the current discussion, attention will focus on the intrapersonal constraints on leisure participation for people with disabilities. Such constraints may be directly associated with a disabling condition but may also arise from other factors such as parental over-protection or inadequate educational opportunities (Kennedy et al., 1991). While attitudinal barriers are considered by

Kennedy et al. (1991) to be environmental barriers, the perception of hostile attitudes may act as intrapersonal constraints for people with disabilities.

The Importance of Intrapersonal Constraints

According to Crawford et al. (1991) constraints are encountered hierarchically. In their model, constraints affecting preferences (ie., intrapersonal constraints) are encountered and negotiated before constraints affecting participation (ie., structural constraints) are encountered and negotiated. The authors propose that individuals must overcome each level of constraint in order to face the subsequent level, a hierarchy clearly depicted in Figure 1.

Crawford et al. (1991) proposed intrapersonal constraints on leisure participation as being the most powerful constraints because they influence the motivation for participation. A person who believes that they should not do certain activities and do not have the competence to perform certain activities may be prevented from testing the extent to which higher level constraints exist. Seligman (1975) suggested that the perception by an individual that they lack ability or competence is perhaps the most serious of all constraints as it often leads to a state of perceived lack of control, helplessness and low self-esteem.

Research has found that individuals with high self-esteem behave differently to those with low self-esteem. People who have a low self-esteem are likely to have a greater perception of leisure constraints (Dattilo, Datillo, Samdahl, & Kleiber, 1994) and tend to remain passive rather than expose themselves to laughter and criticism (Coopersmith, 1967). People with disabilities may develop preferences for leisure activities such as reading and watching television because these activities can be done in the privacy of their own homes. Rosenberg (1989) suggests that people who have a low self-esteem may become shy and tense in new situations which results in them becoming more self-conscious than they would be if they had a higher self-esteem. Murphy (1987) maintained that people with disabilities who have low self-esteem may withdraw from participation in societal activities. People with a high self-esteem generally have a healthier view of themselves, are happier, function more effectively (Pope, McHale, & Craighead, 1988), have a greater social independence and are more creative (Coopersmith, 1967). This suggests that people who have high self-esteem may find it easier to develop preferences for leisure

activities, especially those that involve contact with other people. Indeed, Raymore et al. (1994) found that people with low levels of self-esteem perceived significantly more intrapersonal constraints than people with medium or high levels of self-esteem. Their research also found that females had lower levels of self-esteem than males, suggesting that females may be more likely to experience higher levels of intrapersonal constraints than males.

People who have disabilities are often over-protected and over-assisted by others which can lead to the individual becoming physically and psychologically incapable of achieving a desired level of independence (Kennedy et al., 1991). Over-protection can occur in leisure activities when the non-disabled perceive the activities as too risky or otherwise inappropriate for people with disabilities. This situation may arise especially in outdoor recreation activities. Outdoor programmes offer challenge to people with disabilities, allowing them to grow and learn by taking risks (McGill, 1990). Such programmes also build self-confidence, provide a sense of accomplishment, and relieve boredom (Peterson, 1978).

Even a confident, accomplished person may not have access to leisure if they lack knowledge about opportunities available. Although lack of information about leisure activities could be considered a structural constraint, it can also interact with leisure preferences and become an intrapersonal constraint. Being unaware of leisure opportunities available can restrict the participation of individuals (Iso-Ahola & Mannell, 1985). Knowledge is needed to enable individuals to make informed decisions (Kennedy et al., 1991). Knowledge of existing opportunities may be achieved by informing people of programmes, support services, transportation, resources and benefits associated with these opportunities (Kennedy et al., 1991).

Hutchison (1980) conducted a study of people with physical disabilities and found these people considered that a lack of information on available services to be an important constraint to recreation participation. Schleien & Ray (1988) also maintain that lack of knowledge and education in the use of recreational services can impede the participation of people with disabilities.

Exposure to a wide range of leisure activities during childhood and adolescence is essential for the development of leisure interests in adulthood (Iso-Ahola & Mannell, 1985). This exposure may not have occurred for many people

with disabilities making it more difficult for them to select leisure activities in their adulthood.

Associated with lack of exposure is lack of social skills, often arising from parental over-protection and segregation from non-disabled peers (Kennedy et al., 1991). Not possessing the appropriate social skills for interaction with others during leisure time activities may seriously limit an individual's ability to mix with others, affecting leisure choices. Limited social skills can also have detrimental effects on an individual's self-image, which is formed through interaction with others (Kennedy et al., 1991). People with disabilities may not form preferences for activities which involve interaction with others if they have limited social skills.

Kennedy et al. (1991) raise the notion of physical and psychological dependency and suggest that many people who have disabilities do not achieve their potential for independent functioning. For some this is due to being genuinely limited by their disability, while others 'learn' to be dependent in situations they are actually capable of controlling. Dependency may also be a symptom of over-protection or over-assistance by others (Kennedy et al., 1991). Although psychological dependency is not always as obvious as physical dependency, Kennedy et al. (1991) maintain that the former can be more limiting. Family, friends and professionals are all capable of fostering an atmosphere of psychological dependency for people with disabilities and this situation may sometimes be reciprocal where the person with the disability receives feelings of satisfaction from being protected and patronised while the non-disabled person(s) enjoys being needed by someone who is viewed as being less fortunate. In an atmosphere of psychological dependency, people with disabilities are unable to develop initiative, creative thought, risk taking, and perseverance, qualities which are needed to overcome many of the barriers they face (Kennedy et al., 1991). Psychological dependency acts as an intrapersonal constraint when the individual lacks the personal strengths which will enable them to overcome feelings of anxiety and shyness, for example. People with physical disabilities may experience the discomfort of becoming self-conscious and have a fear of rejection (Henderson et al., 1995) as a result of being psychologically dependent. If individuals have been largely sheltered from every day social experiences, they may not have the personal resources which would allow them to form preferences for particular leisure activities.

Enjoyment of an activity is most often possible if the participant perceives that the challenges of an activity are in balance with their skills (Csikszentmihalyi , 1975). Worry and anxiety may result if the challenges are perceived to be too great and boredom may be the result if challenges are too easily achieved (Backman & Crompton, 1989). Skill development can be limited by the nature of an individuals disability but for many individual's with disabilities, opportunities that allow them to develop their leisure skills do not exist (Kennedy et al., 1991). As a result, many activities are considered too challenging.

The perception that a person with a disability has of their skill level is a very important factor when participating in leisure activities. Underestimation of skill may lead to withdrawal from participation, whereas overestimation may prove embarrassing or even dangerous (Kennedy et al., 1991).

The attitudes of other people toward those with disabilities may influence the desire of people with disabilities to participate in leisure activities. Attitudinal constraints can be the most limiting of all constraints facing people with disabilities (Kennedy et al., 1991). Kennedy et al. (1991) divide attitudinal behaviours into three categories: (1) Negative behaviours, where negative attitudes are displayed towards those who are in some way different, suggesting they have less value than other people (eg. avoidance and derogatory labelling); (2) Paternalistic behaviours, where adolescents or adults are treated as children or where children are treated as babies; people with disabilities are viewed as lacking competence, maturity, and the capacity for independence; (3) Apathetic behaviours, where people hold no feelings (of sympathy, respect or otherwise) for those who have disabilities. Luborsky (1994) referred to a situation known as 'infantilisation' to describe a childlike dependency on others. This type of dependency is capable of producing feelings of worthlessness (Zoerink, 1988). Although thought of as an interpersonal constraint, the attitudes of others may influence preferences of people with disabilities for leisure activities and thus be considered an intrapersonal constraint. The presence of negative, paternalistic, and apathetic behaviours may result in a person with a disability not wishing to become involved in an activity if there is a chance that they may become embarrassed, offended, or feel patronised.

People with disabilities may not wish to become involved in some activities if they have a negative view of their body-image. Frederick and Shaw (1995) maintain

that having a negative body-image may act as a constraint to leisure. Body-image may be particularly relevant to people with disabilities, especially if they have uncontrollable movements or actions. Being aware of these may mean that a person with a disability decides not to take part in activities which may expose them to ridicule.

Previous research has revealed that there are numerous factors which constrain the leisure involvement of individuals. Intrapersonal constraints to leisure experienced by people with disabilities include a perceived lack of ability, low self-esteem, being over-protected or over-assisted, lack of information, lack of social skills, psychological dependency, and the perceived attitudes of others. Involvement in leisure activities begins with the formation of preferences for particular activities. Constraints to leisure preference formation, known as intrapersonal constraints, may include shyness, anxiety, and embarrassment. Such constraints may be particularly relevant to people with disabilities as they may be more likely to be constrained by intrapersonal factors than the non-disabled. The present study seeks to contribute to an understanding of intrapersonal constraints to leisure by investigating how issues such as shyness, anxiety, and perceived skill level are associated with the leisure preferences of people with physical disabilities.

Facilitators to Leisure

People may possess resources that facilitate access to leisure opportunities. These resources will be referred to as intrapersonal facilitators in this study. Intrapersonal facilitators may be thought of as those factors which enable leisure preference formation and participation. Examples of intrapersonal facilitators include being confident, being outgoing, and having support from kin and non-kin reference groups. Intrapersonal facilitators are important because they can encourage people with disabilities to take part in leisure activities and overcome the effects of intrapersonal constraints.

Henderson et al., (1995) described three categories of women with physical disabilities in relation to their leisure involvement - passive responders, achievers, and attempters. Passive responders were women who did not seek to overcome constraints to leisure. These women did not possess the resources which would

allow them to negotiate leisure constraints and thus facilitate their leisure interests and participation.

Achievers and attempters recognised the resources available to them that facilitated their leisure involvement. According to Henderson et al. (1995) women classified as achievers participated in activities that they had done previously and found new ways of doing old things. Women with physical disabilities who thought that anything was possible until they tried it and failed were classified as attempters. Some women in the study reported that they substituted active activities with passive ones and limited their participation in activities which were stressful and fatiguing. Other women experienced leisure by enjoying the participation of others through vicarious experiences (Henderson et al., 1995).

Intrapersonal facilitators such as enjoyment, being willing to try activities, and adapting to abilities may facilitate the leisure preferences and participation of people with physical disabilities. Facilitators of this nature may not be recognised by an individual with a physical disability unless they are encouraged to focus on their strengths rather than weaknesses. The recognition of intrapersonal facilitators may counteract the effects of intrapersonal constraints.

To date, little research has investigated the role of intrapersonal facilitators to leisure. The present study is partly based on the premise that individuals may possess personal resources which enable the formation of leisure interests. This study attempts to address the imbalance between constraint and facilitator research by investigating personal resources which facilitate leisure interests.

Having considered the benefits of leisure (particularly for people with disabilities), constraints on leisure, and the importance of intrapersonal constraints and intrapersonal facilitators to leisure, attention now turns to the disability types being focussed on in the present study. The following section provides detail on the implications of having a physical disability, discusses what a congenital disability is with particular reference to cerebral palsy, and what an acquired disability is with particular reference to spinal cord injuries. The role that leisure can play in the lives of people with these disabilities is also discussed.

Implications of Physical Disabilities

Before beginning discussion on disability, and physical disability in particular, it is important to develop an understanding of what "disability" means and how it relates to the terms "impairment" and "handicap". These words are often inappropriately used which can offend people with disabilities (Cahill, 1991; Ballard, 1994; Theobald, 1995; Oliver, 1996).

The World Health Organisation (WHO) defines an *impairment* as "any loss or abnormality of psychological, physiological, or anatomical structure or function, which may result in a disability" (WHO, 1980, p 47). Oliver (1996) suggests that an impairment is lacking, or having a defective, limb, organ, or mechanism of the body. A *disability* is defined as "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (WHO 1980, p 143). A disability may be slight to severe, short to long term, visible or hidden, multiple and may affect functions such as hearing, vision, intellectual function, learning, mobility, speech, or mental health. Disabilities can originate before or during birth (congenital) or as a result of disease, injury or aging (acquired) (WHO, 1980). A *handicap* is "a disadvantage for a given individual resulting from an impairment or a disability that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social or cultural factors) for that individual" (WHO 1980, p 183). Handicaps may be thought of as social disadvantages and can include limited ability to perform tasks such as self care, mobility, communication, education and employment (WHO, 1980). The definitions provided by the World Health Organisation highlight the significant differences between the meanings of the words impairment, disability and handicap.

There is an important distinction between disability and handicap. A handicap consists of inequalities in the environmental and social conditions experienced by a person with a disability (Heywood et al., 1995). Handicaps result from having a disability in a community which does not cater for disability. Handicaps are socially determined (Skelt, 1994) and factors such as where one lives, income, and attitudes determine the level of handicap a person experiences. WHO (1980) provided the following illustration of how impairment, disability and handicap are related.

Figure 2 depicts an impairment as a condition which in turn influences the functional ability of an individual resulting in a disability. An individual with a

disability may experience difficulties imposed upon them by societal or environmental factors known as handicaps.

condition	function	social consequence
IMPAIRMENT	DISABILITY	HANDICAP

Figure 2. World Health Organisation Framework.

Having a physical disability often means that a person is unable to perform many daily activities on their own that the non-disabled take for granted. Such activities may include bathing, eating and moving around (Luborsky, 1994). People with physical disabilities often find such activities difficult and time consuming. Luborsky (1994) contends that those with disabilities may also experience difficulties in holding a job and joining in leisure activities. If people with physical disabilities are unable to take part in these valued activities, social devaluation and low self-regard may be fostered. However, caution should be taken not to presume that everyone with a disability will experience the same difficulties. The degree of difficulty experienced in taking part in valued personal and social life may depend a lot on the nature of the disability.

Henderson et al., (1995) found that subjects who required assistance from others often struggled to maintain a balance between being independent and dependent, physically and psychologically. The need for assistance was more important when participating in activities away from the home and involving public or active participation, such as mobility, transportation, and toileting (Lyons, 1991). People with disabilities who do not like being dependent on others may develop a preference for activities they can do on their own, often centred around their homes. Requiring assistance may have negative implications for the recipient such as loss of personal control and a perceived display of personal weakness (Hansson, Jones, & Carpenter, 1984). Women with physical disabilities who did not have the support of

family, friends, and support groups were found to be most constrained by dependency on others (Henderson et al., 1995).

Participation in social activities may also be influenced by how a person with a disability views their physical make up. People are aware of their appearance and are guided in their behaviour by the response they perceive others will have to them (Russell, 1988). A person with a physical disability may withdraw to avoid reactions such as shock, pity or distaste (Russell, 1988). Visible disabilities such as cerebral palsy and spinal cord injuries may elicit 'stigma' (Cahill, 1991, Russell, 1988) whereby people are teased or humiliated by others due to their obvious differences. The use of a wheelchair or other devices can cause the non-disabled to develop negative impressions of the user. For example, a woman in Henderson et al's., (1995) study reported that people would often stare at her focussing on her wheelchair, leading her to believe that she was not viewed as a person. If a person with a disability is confident in themselves and is assertive, s/he is more likely to receive positive personal evaluations from others (Elliott & Frank 1990; Elliott, MacNair, Yoder & Byrne, 1991). Negative judgements are more likely to be made of those who have severe physical disabilities. These are the "hidden" population (Coyle & Kinney, 1990) who until recently, resided in institutions and have had little opportunity to develop assertiveness and social skills.

In the past, people with disabilities have been thought of as having personal problems or illnesses which required intervention by, and dependency on, professionals (Ballard, 1994). Services provided for people with disabilities were based on medical models, when the difficulties they experienced were not medical in nature. These people became labelled as 'clients' or 'patients' (Ballard, 1994) and were treated as 'special' - segregated from community based services. The notion of rehabilitation has also been associated with the medical approach to disability in that services have been provided to restore people to normal function (Cahill, 1991). Both approaches have, in the past, resulted in service providers controlling the way people with disabilities have lived their lives. Living conditions, employment opportunities and leisure time activities have been predetermined by providers with individual's wishes and personal choices largely ignored (Cahill, 1991, Ballard, 1994).

Coyle and Kinney (1990) found that "the more severe the level of impairment for both acquired and congenital disabilities, the more dissatisfied the individual is in terms of his/her leisure" (Coyle & Kinney, 1990, p 71). They suggest that people with physical disabilities need to be made aware of the importance of leisure for its role in health promotion and in combating social isolation.

Research has shown that people with disabilities may experience a number of constraints which influence their leisure interests. Factors such as independence, self-esteem, personal control, body image, and perceived skill level are concerns which affect the leisure interests of persons with disabilities.

Although the experience of intrapersonal constraints and facilitators to leisure may in general be similar for people with physical disabilities, people who have congenital disabilities may experience different constraints and facilitators to those experienced by people who have acquired disabilities.

Cerebral Palsy

Physical disabilities may be congenital or acquired. A congenital disability is one that occurs before or at birth. An example of a congenital disability is cerebral palsy which is not a disease but a form of brain damage: the word "cerebral" refers to the region of the brain which has been damaged and "palsy" refers to shaky or uncontrolled motion. Characteristics of cerebral palsy include awkwardness of gait and loss of manual dexterity. Seizures, visual and auditory impairments, learning difficulties, psychological and behaviour problems may also occur (Condeluci, 1989). The Australian and New Zealand Perinatal Societies (1995) state that cerebral palsy is the most common of all physical disabilities in childhood.

Most cases of cerebral palsy result from lack of oxygen to an immature brain. This damage may result from umbilical cord problems, untreated jaundice, or excessive parental smoking or drinking (Condeluci, 1989). People who have cerebral palsy may exhibit many different physical characteristics, ranging from a slight speech or mobility impairment through to being non-ambulatory and totally reliant on others for support. Magill & Hurlbut (1986) report that studies of attitudes towards people with disabilities have shown that cerebral palsy is the least favourably viewed and they contend that this can impact on the self-esteem of people with this condition.

Many people with cerebral palsy have needed lengthy stays in hospital when young and some require on going support from medical professionals for daily care or therapy. Regular exposure to such treatments may leave the affected person with the impression that they are unable to be fully in control of their own destiny. These feelings may extend into their leisure (Nosek, 1984). Giving people with cerebral palsy control of their destinies may best be achieved by empowering them so they are able to make their own decisions.

Empowering people with cerebral palsy involves providing them with opportunities for social interaction with their peers. Problems of social skill development are common amongst adolescents with cerebral palsy (Wadsworth & Harper, 1993) but appear to decrease in early adulthood (Magill-Evans & Restall, 1991). Increased independence, greater choice, and increased self-esteem may facilitate the development of leisure preferences of individuals who have cerebral palsy by giving them the confidence to pursue activities they may not have tried when younger.

Due to isolation and disruption, the leisure experiences of a young person with a congenital disability such as cerebral palsy may be quite different to those of a young person without a disability (Zoerink, 1988). Infants with disabilities are excluded from many family and social events, especially if parents feel guilty or embarrassed about their disabled child (Battle, 1974). Youngsters with disabilities may therefore miss out on contact with other people, developing a very different leisure attitude than those of their non-disabled peers (Zoerink, 1988). Disruptions occur when lengthy stays in hospital are required and isolation results from inability to access the daily social activities of peers. Zoerink (1988) also suggests that the use of assistive devices may also limit social interaction. Many people associate the presence of a wheelchair, for example, with dependency in the user. Co-participants may not wish to accompany a person with cerebral palsy if they perceive that person as being dependent on them for assistance.

Individuals with cerebral palsy may be well aware of the benefits of physical activity but may not be able to participate due to the need to have an assistant present. People who require assistance may be embarrassed about needing assistance, may have a fear of being a burden on their friends (Wright, 1983) and as a result may not form preferences for activities that require help from others.

Although inappropriate assistance is usually considered an interpersonal constraint, it may act as an intrapersonal constraint if the individual does not become interested in an activity because they prefer to remain independent. The use of equipment such as a wheelchair or a ramp for bowling a ball, may lessen the need for assistance from others and give an individual a sense of independence (Becker & Schaller, 1995). Wright (1983) maintains that people who require assistance should aim for interdependence, balancing needs for dependency and independence. People with cerebral palsy may benefit from initial assistance from facilitators or councillors (Wadsworth & Harper, 1993). This assistance can be reduced as the individual develops confidence, independence, and friendships. People who have cerebral palsy may be more inclined to participate in a leisure activity if they feel that they can maintain their independence while doing so.

Many people with cerebral palsy find some leisure activities very difficult, with or without assistive devices, and are less motivated to continue participating in these activities.

Despite many difficulties people with cerebral palsy are capable of participating in a range of leisure activities including swimming, track and field, power lifting, soccer (Cooper, Sherrill, & Marshall, 1986; Stewart, 1981), horseback riding, slalom, cycling (Cooper et al., 1986), bowling, table tennis, shooting, and archery (Stewart, 1981).

Leisure activities which require a substantial amount of physical effort may not attract people with cerebral palsy (Becker & Schaller, 1995) for whom daily living activities require a great deal of time and energy. Subjects in Henderson et al's (1995) study found that they had to pace themselves so that they did not run out of stamina. Becker & Schaller (1995) also reported that knowing when to rest helped facilitate the future leisure involvement of a person with cerebral palsy.

If empowerment of people with cerebral palsy occurs through social interaction, as suggested by Condeluci (1989), leisure activities may provide a useful tool for the process. However, for empowerment to occur, the constraints and facilitators to the leisure preferences of a person with cerebral palsy must be considered.

A congenital disability such as cerebral palsy may result in the experience of intrapersonal constraints and facilitators being quite different from those experienced

by people with acquired disabilities such as spinal cord injuries. People who have cerebral palsy may have been excluded from social interaction, be accustomed to varying degrees of dependency, and have low levels of stamina. Having a congenital disability means that people are faced with difficulties from an early age and do not have to adjust to new abilities part way through life as people who acquire disabilities do.

Spinal Cord Injuries

Spinal cord injuries usually result from incidents such as vehicle accidents, sports injuries, and work related accidents. Damage to the spinal cord can result in changes to, or loss of, bowel, bladder and sexual functioning (Cushman and Dijkers, 1995; Frank, Van-Valin, & Elliott, 1987), voluntary movement, sensation, and body image (Cushman and Dijkers, 1995). Physical adjustments and stresses are not the only adjustments that a person with spinal cord injuries has to make. Major social and psychological adjustments are often required (Frank et al., 1987). Acquiring an impairment such as a spinal cord injury will mean that an individual has to negotiate many kinds of constraints in daily life and will have to deal with continual adjustment (Lee, Dattilo, Kleiber, & Caldwell, 1996). Frank et al. (1987) suggest that social and psychological adjustments have not received the same attention by researchers as physical recovery has due to psychological effects being less obvious and initially less threatening to an individual's survival.

Difficulties with adjusting to disability can result in a decreased quality of life, poor self care and costly multiple medical problems for people with spinal cord injuries (Malec & Neimeyer, 1983). Many people who acquire a spinal cord injury are susceptible to bouts of depression, though great differences exist between individuals (Mueller, 1962). A person who is determined to improve their situation may show fewer signs of depression than someone who is not as strong willed. Among other factors, depression may be associated with loss of ability to do the things that the individual once did.

Severity of injury increases the risk of depression according to MacDonald, Nielson, & Cameron (1987). Paraplegics suffered less from depression than quadriplegics. Additionally, depressed individuals are less assertive and less socially skilled in general (Lea & Paquin, 1981). Successful adjustment to a spinal cord

injury is assisted by high self esteem, productivity, and the ability to maintain satisfactory relationships according to Cushman and Dijkers (1991). Leisure potentially plays an important role in successful adjustment.

The support of an individual's family has been shown to be an important factor in the adjustment to spinal cord injuries (Buchanan and Nawzenski, 1987; Trieschman, 1980). Families and friends can encourage and support the person during their adjustment phase, encouraging vision for the future. Schulz and Decker (1985) found that people with spinal cord injuries who had higher levels of social support were more satisfied with their social contacts.

Despite these positive attributes of social groups, not all social support is helpful. People such as parents, friends or caregivers may hinder a person with spinal cord injuries due to intrusiveness and over-protectiveness (Elliott et al., 1991).

With appropriate support and encouragement, individuals who have spinal cord injuries may be able to form preferences for and become involved in a wide range of leisure activities. According to Kennedy and Smith (1990), the nature and amount of leisure activity involvement an individual with a spinal cord injury is exposed to may be vitally important to their long term adjustment. Leisure activities, when used in conjunction with conventional treatment methods may reduce clinical depression, reduce rehospitalisation, improve interaction with family, and protract life expectancy (Kennedy and Smith, 1990). Two major advantages of leisure participation are increased physical function and increased social interaction, both of which are positively associated with improved self-esteem and psychological well-being (Katz, Adler, Mazzarella, & Ince, 1985).

Participants in Kennedy and Smith's (1990) study reported anticipation of decreased involvement in adventure-related activities. Limited functional ability following spinal cord injury resulted in these people automatically perceiving that the range of leisure activities available to them would be restricted. Lee et al. (1996) maintain that individuals in their study with spinal cord injuries expressed a desire to continue with the activities they enjoyed before their injuries and that this was facilitated by doing activities a different way. Individuals with spinal cord injuries may enjoy leisure activities a lot more if the activities are similar to what they used to do.

Bedini & Henderson (1994) found that social and psychological comfort had an influence on the leisure involvement of women with physical disabilities. The researchers found that feelings of comfort in social situations and the emotional security involved when interacting with others not only influenced the enjoyment of an activity but also whether the individual even wanted to pursue the activity. This serves to highlight the importance of intrapersonal constraints and facilitators to leisure for people with disabilities.

Kleiber et al. (1995) suggest that a loss of ability to participate in preferred activities due to negative life events may be particularly distressing if the activities have special relevance to a person's identity. Many people may become involved in passive activities (Dew, Lynch, Ernst, & Rosenthal, 1983), losing the identity they had in relation to physical activities.

The literature reveals that people who have spinal cord injuries cope in different ways in dealing with new found abilities. Individuals who are assertive, positive, are willing to try new activities, and have the necessary and appropriate support are most likely to be able to develop interests for and participate in a wide range of leisure activities.

Leisure has a vital role to play in the adjustment to, and maintenance of, a productive and rewarding lifestyle for people with spinal cord injuries. Assisting an individual to realise the personal strengths they have may enable them to develop interests for activities they many not have initially thought possible. Determination of the factors which influence preferences for particular leisure activities may assist leisure and recreation providers in the establishment of meaningful and enjoyable leisure activities for people with spinal cord injuries.

Summary

The literature reviewed suggests that there are numerous benefits to be gained through participation in wide and diverse range of leisure activities. Despite these benefits, people who have physical disabilities may experience constraints to their leisure interests and may not get the opportunity to gain such benefits. Intrapersonal constraints such as anxiety, shyness, depression, and perceived lack of self-skill, may restrict the leisure interests of a person with a physical disability. People who have

the personal resources such as being confident and willing to try new things may experience fewer constraints to their preference formation for certain activities.

Different typology's of leisure have been studied in previous constraints research. The present study adopts similar typology's to those used by Jackson (1983; 1994) and Jackson and Searle (1983) whereby passive leisure, outdoor recreation, and sports activities will be examined in order to determine if type of activity is associated with the reporting of constraint and facilitator within each domain of leisure.

The enjoyment of a leisure activity is often assured if a participant perceives their skills to be appropriate for the activity (Csikszentmihalyi, 1975). Enjoyment of activities may reflect the extent to which a person likes an activity. People who participate in activities may be more likely to report more constraints and facilitators than people who do not participate (Kay & Jackson, 1991; Shaw et al., 1991). People with different aetiology's of disability may experience different constraints on their leisure. Those who have congenital disabilities such as cerebral palsy may not experience constraints pertaining to changed abilities as people with acquired disabilities may, for example. A purpose of the present study is to investigate whether liking an activity, previous involvement, and type of disability are associated with level of constraint and facilitator within the three domains of leisure.

Due to the varying nature of activities included within the three domains of leisure in the present study, intrapersonal constraints and facilitators may have a closer association with some activities than others. Following the advice of Jackson (1994) that constraints research should include activity-based variations, investigation as to whether constraints (and facilitators) in one leisure activity domain are related to those in another will be conducted in the present study.

This study seeks to determine whether constraints and facilitators related to leisure activities people have a preference for are related to the same constraints and facilitators relating to activities they do not have a preference for. The experience of intrapersonal constraints and facilitators may differ between activities for which people already have preferences and activities for which they do not have preferences.

Recreation programme and facility staff need to be aware of the intrapersonal constraints and facilitators facing people with cerebral palsy and spinal cord injuries.

Such an awareness will enable them to provide opportunities which cater for the interests of these people as well as the people with physical disabilities in general.

There has been little empirical research conducted into the experience of intrapersonal constraints and facilitators by people with physical disabilities, though the benefits of having a better understanding of them are clear. Recognition of intrapersonal strengths and weaknesses may assist people with disabilities become aware of why they form preferences for particular activities allowing them to increase their involvement in leisure activities. This study aims to investigate intrapersonal constraints and facilitators to leisure as experienced by people who have physical disabilities.

Chapter III: Methodology

This study set out to investigate how intrapersonal constraints and facilitators are related to the leisure interests of people with cerebral palsy and spinal cord injuries. This chapter details the methods used in the study and how these methods evolved from a review of relevant literature and a previous pilot study. The subjects involved in the research, instrumentation, and related issues are also discussed.

Pilot Study

During 1994/1995, the researcher conducted a pilot study investigating intrapersonal constraints and facilitators to leisure participation for people with physical disabilities. Sixteen people from Christchurch who had physical disabilities including sight impairment, arthritis, cerebral palsy, and spinal cord injuries were interviewed and a number of intrapersonal constraints and facilitators that affected their leisure preferences were identified. Constraints identified included shyness, anxiety, moral beliefs, personal values, and perceptions of ability while being outgoing, sociable, and being willing to try new activities were identified as facilitators. These constraints and facilitators have been incorporated in the present study. People with intellectual disabilities were not included in the pilot study and the present study because both studies focussed on people who had physical limitations rather than intellectual limitations. People with intellectual disabilities may experience difficulties with accumulating knowledge of the world they live in, the world of people, objects, events and ideas. (Upton, 1979). By focussing on physical disabilities, the researcher attempted to limit the scope of the current study to physical influences rather than intellectual influences.

The pilot study suggested that research in this area may lend itself to quantitative methods. Responses given to interview questions in the pilot study indicated that a survey could have obtained similar information. The researcher chose to use a survey in the current study because it enabled standardised questions to be provided to all subjects (Babbie, 1989). The researcher also decided to adopt a quantitative approach to the current study to enable a large number of people to be surveyed over a short period. Adopting a quantitative approach gives the researcher

the ability to make comparisons between people with different disabilities and look for statistical relationships between selected variables.

Due to the method used, the non-representative nature of the sample, and the low number representing each disability in the pilot study, findings were not generalisable to people with particular types of disabilities. The researcher considered this situation problematic because people with different disabilities may experience different intrapersonal constraints and facilitators, and may also participate in different types of leisure activities. For example, someone with cerebral palsy may be more likely to become anxious due to their physical appearance while people who use wheelchairs may be more likely to participate in indoor sports activities than those who do not use wheelchairs.

Based on this concern regarding the potential for constraints and facilitators to be linked to disability type, people who had two types of physical disability were used in the present study; cerebral palsy and spinal cord injuries. The main reason for choosing people from these two disability categories was that cerebral palsy represented a congenital disability while spinal cord injuries represented an acquired disability. An advantage of isolating a small number of disability types to study is that comparison of intrapersonal constraints and facilitators can be made.

The pilot study also revealed that a person's age may influence their preference for leisure activities. In an attempt to control for the influences of age, people between the ages of 18 and 45 were selected for the present study. People within the 18-45 age bracket were selected as influences of youth and older age could be controlled and the age bracket could be easily accessed from the Workbridge database.

Subjects

Five agencies that provide services for people with disabilities were approached in order to gain access to a list of people who had cerebral palsy and spinal cord injuries in New Zealand. The Ministry of Health and Income Support Services were unable to provide such information primarily due to the 1993 Privacy Act. The Queen Elizabeth II hospital in Rotorua was unable to assist as they did not keep records that would have been useful for the identification of people with cerebral palsy in New Zealand. The New Zealand Paraplegic and Physically

Disabled Federation Inc (Parafed) were not able to provide access to a nationwide database as their databases were compiled at a regional level. Workbridge Inc., an employment and job training agency for people with disabilities, had a nationwide database of clients and was prepared to support this study. As other avenues had proven unsuccessful, the Workbridge database was used to identify people with cerebral palsy and spinal cord injuries in New Zealand.

A condition of using the Workbridge database was the inclusion of a section in the questionnaire addressing intrapersonal constraints and facilitators facing subjects in their employment and/or job training. The results from this section will not be included in this study as the employment section was included on behalf of Workbridge Inc., who jointly funded this study with Lincoln University.

Workbridge provided a list of service users who were between the ages of 18 and 45 and who had either cerebral palsy or spinal cord injuries and who had been or were listed with Workbridge Inc., since 1991. The people surveyed were from throughout New Zealand and represented the total population of Workbridge service users who met the criteria for inclusion in the study.

Instrumentation

The questionnaire, a mail survey, was designed in a manner which would allow its replication with non-disabled populations. Such replication is important because it allows researchers to determine whether different groups of people experience similar intrapersonal constraints and facilitators to leisure (Jackson & Searle, 1985).

Taking Jackson's (1994) advice that "leisure researchers need to include activity-based variations when investigating antecedents of the experience of constraints" (p. 33), the questionnaire was divided into three booklets, each addressing a different type of leisure activity. One booklet focussed on general facilitators to leisure and passive leisure activities (eg., reading and watching television), another focussed on outdoor recreation activities (eg., tramping and skiing), and the third on sports activities (eg., swimming and tennis) and employment. Dividing the questionnaire in this way assisted subjects to focus on one type of activity at a time, and may have made the task of completing the survey seem less daunting. Appendix 1 contains the complete instrument.

Each leisure activity section began by asking subjects to rank five listed activities in order of preference. The specific activities were selected based on those identified by participants in the pilot study and from the literature pertaining to the leisure activities in which disabled and non-disabled populations participated (Buchanan, 1977; Croucher 1981; Guttmann 1976; Paciorek & Jones, 1994). All activity types provided in each section had also been included in the Life in New Zealand survey (1991). The outdoor recreation section, for example, asked subjects to rank (1-5) in order of preference: tramping, horse riding, fishing, skiing, and rock climbing. Subjects did not have to have had been previously involved in these activities. The range of specific activities provided were selected by the researcher on the basis that they reflected a wide range of interests, and required differing skill levels. By limiting the activity choice for each section, findings could be applied to specific activities.

Subjects were asked to indicate whether they participated in the activity they ranked #1, then to indicate on a five-point Likert scale how much they liked that activity (1= strongly dislike, 5= like very much). The next question asked subjects to indicate whether people generally did the activity they ranked #1 all year round, in winter, or in summer. This question was to control for seasonality.

Subjects were asked to indicate, on average (during the appropriate season), how often they participated in their number one activity for each activity category. Ordinal categories ranged from daily to less than once per month with another option available for those who had not participated in that activity at all. The average length of time subjects spent each time they participated in that activity was also sought. Options ranged from one hour or less to longer than a week. An option was again available for those who had not participated in the activity they ranked #1.

These questions were aimed at obtaining background information about the leisure activities subjects most preferred out of the choices available on the survey and their participation status in that activity. The questions also acted as a check on the subjects knowledge about the activity they ranked #1. In addition, these questions were designed to enable subjects to focus on the activity they ranked as #1 before being asked to respond to a series of statements regarding intrapersonal constraints and facilitators surrounding that specific activity.

The constraint and facilitator statements to which subjects had to respond were generated from a review of the literature in relation to people with and without disabilities, and from the pilot study. Constraint and facilitator statements were mixed, randomly ordered and were stated both positively and negatively in order to reduce a response set from developing (Babbie, 1989). Subjects were asked to indicate their strength of agreement with each statement using a four point Likert scale. Response options offered ranged from strongly agree (1) to strongly disagree (4). An intermediate option (ie., neutral) was not offered. Pedhazur and Schmelkin (1991) suggest that, in general, an intermediate option not be used or be used with caution since neutral responses offer an easy or fast way out, a means of coping with anxiety evoked by being expected to respond regardless of knowledge or thought on the matter, and are the chosen response of people who do not understand the question. The use of Likert-type scales in quantifying leisure constraints research has been common practice (see Raymore et al., 1993; Henderson et al., 1988; Jackson, 1983; Witt & Goodale, 1981).

The next part of each section required response to the same set of statements with reference to the activity the respondent ranked #5. Before doing so, subjects were asked to remind the researcher which activity they had ranked #5 in an attempt to ensure that subjects would adjust their focus from the previous activity. Subjects were also asked if they participated in the activity they ranked #5, and to rate how much they liked this activity.

Each booklet contained the same format; subjects answered the same constraint and facilitator questions for passive leisure, outdoor recreation, and sports activities. The facilitators and passive leisure activities booklet began by asking for responses to eleven statements about subjects' experiences of general facilitators to their leisure interests. The same Likert scale used for the activity subjects ranked #1 was used for the activity they ranked #5.

The last question of the final booklet asked subjects to indicate whether they had assistance with completing the questionnaire or whether they had completed the questionnaire themselves. This information was considered important because people who completed the questionnaire on behalf of the respondent may have had different perceptions of the subjects' views and experiences. Becker and Schaller (1995) recognised that people with severe disabilities may experience difficulties in

completing questionnaires, that the person who assists them to complete the questionnaire may not have a disability, and that it is "not known what potential bias the practice may introduce into the data collection"(p. 39). Newton, Ard, and Horner (1993) contend that caregivers are unable to accurately predict the activity preferences of those for whom they care. A comparison of responses could be made between subjects who had assistance and those who did not, to see if there were any significant response differences.

At the end of booklet three, subjects were thanked for taking the time to complete the questionnaire, and were asked to post booklets 1, 2, and 3 in the prepaid envelope provided. Subjects were reminded that a copy of the results would be sent to them when the study had been completed.

The order in which booklets (facilitators and passive leisure activities, outdoor recreation activities, and sports activities and employment) were presented to subjects varied. A third of the questionnaires began with sports and employment as book 1, outdoor recreation as book 2, and facilitators and passive leisure as book 3. This tactic was used in an attempt to counterbalance any order effects associated with the completion of the survey.

The questionnaire did not include a section requesting demographic information such as age, gender, and disability, because Workbridge was able to supply this information for subjects.

Because the people who were surveyed for the current study lived throughout New Zealand, the researcher determined that the most efficient way to collect data was to mail the questionnaires. Mailing the questionnaires was a convenient way of distributing the questionnaires, ensuring that a reasonable number of prospective subjects were given the opportunity to participate in the current study.

Administration of Survey

Social science researchers have mixed options as to what constitutes a suitable response rate from a mail survey. Singleton, Straits, and Straits (1993) view 50% as being suitable. Babbie (1989) states that a 50% response rate is adequate for analysis and reporting and 60% is good. Dolsen and Machlis (1991) concluded that a response rate of at least 65% for certain surveys is suitable given adequate checks for

response bias and assumed homogeneity. In addition, Babbie (1989) states that a demonstrated lack of response bias is far more important than a high response rate.

A number of actions were taken to improve the response rate of the survey. These actions included hints on how to complete the questionnaire such as marking response boxes and focussing on one section at a time. Allowance was made for subjects who had fine motor co-ordination difficulties by providing adequate space for responses. Subjects were informed in the cover letter that the researcher had cerebral palsy with the aim of encouraging subjects to complete the questionnaire. The questionnaire was split into three booklets with the intent of making its completion seem less daunting. A prepaid reply envelope was included with the questionnaire and two reminder letters and a second questionnaire were sent to people who had not returned their questionnaires by the due dates.

Each questionnaire was assigned a number from 001-374 to enable matching with name and demographic variables once the survey was returned. These numbers were recorded on a master sheet of subjects provided by Workbridge. Workbridge also provided address labels, envelopes, and met the costs of mailed out and return postage. All envelopes were franked. The researcher met the costs of questionnaire production using a research grant from the Department of Parks, Recreation and Tourism, Lincoln University.

As questionnaires were numbered, they were placed in an envelope with a cover letter and a prepaid return envelope. The corresponding address label was fixed to the outer envelope and all were mailed to subjects on 4 December, 1995.

The cover letter used to introduce the survey began by addressing subjects as "Dear Jobseeker" (see Appendix 2). Because Workbridge provided the introduction to the survey, their terminology was used, which may not have been entirely appropriate as many subjects may have been employed or were not seeking employment at the time.

The letter detailed research in which Workbridge had previously been involved, introduced the foundation for the present study, and also introduced the researcher. The importance of the potential subject's input was then stated. Information about the researcher included the fact that he had cerebral palsy, his academic achievements and leisure interests. Suggestions were made as to how

subjects could most easily complete the questionnaire and contacts were provided should they have required assistance.

Confidentiality was assured and an offer to send subjects a copy of the results was made. Signatures of both the Marketing Manager for Workbridge and the researcher were on the letter.

As questionnaires were returned, their numbers were recorded and they were checked for suitability for analysis. The data from suitable questionnaires was entered into an Excel 5 spreadsheet.

Singleton, Straits, and Straits (1993) recommend a reminder be sent to subjects two weeks after the first questionnaire has been sent. A reminder letter was sent to those subjects who had not returned their questionnaires by 18 December, 1995 (see Appendix 3). Workbridge assisted with the production of this letter and met its cost as well as that of envelopes and postage. The reminder letter was sent on 22 December, 1995, and asked subjects to return their questionnaire by 6 January, 1996.

Due to questionnaires being sent out over the Christmas holiday period, and a low response rate as of 20 January, 1996, the researcher decided to mail a second questionnaire to the people who had not returned their questionnaires as recommended by Dillman (1978). A second set of questionnaires were numbered and sent out in the same manner as the first mailing with a cover letter (see Appendix 4). These were sent on 22 January, 1996, and stated that questionnaires had to be returned by 5 February, 1996.

Limitations of Study

The researcher recognises that there are a number of factors which create limitations of the current study.

The Workbridge database included people who had various forms of paralysis in the spinal cord injuries category. People who had paralysis were included in the spinal cord injuries category for the present study as these people may have had similar difficulties as to those who had spinal cord injuries. Readers should note this when interpreting the results of this study.

Use of the Workbridge database omits people with cerebral palsy and spinal cord injuries between the ages of 18-45 in New Zealand who were not listed with

Workbridge because they did not require assistance with finding employment or job training opportunities.

Information from the database used to identify possible participants in the study indicated that in excess of 700 people were available. Once the research was under way, the database was found to generate only half the expected number. Due to the stage of the research, a different population could not be surveyed in an attempt to increase numbers. The size of the population surveyed limits this study.

Three hundred and seventy four Workbridge service users formed the population for this survey. Krejcie and Morgan (1970, cited in Isaac & Michael, 1981) state that for a population of 380, a sample of 191 (50% response rate for this survey) needs to be obtained in order to gain a 95 % level of confidence.

Other limitations surround the reliability of the instrument used. The reliability of the measure could be compromised if the three booklets were not filled out in succession during the same sitting. The length of the survey may have also jeopardised the reliability of the measure if people became complacent when completing the survey. Some of the subjects may have had a low reading level which could have compromised their abilities to understand and complete the survey. No statistical examination of the reliability or validity of the instrument was undertaken.

The survey was mailed immediately prior to the 1995 Christmas holiday period. People may have been away or may not have had time to complete the questionnaire, potentially limiting the number of respondents.

Data Analysis

The Statistical Package for Social Science (SPSS) was used to analyse the data. Statistical analyses consisted of univariate descriptive analyses, bivariate analyses, and multivariate analyses, where relationships between three or more variables were examined.

Summary

This chapter has outlined the methods used to investigate intrapersonal constraints and facilitators associated with the leisure interests of people with cerebral palsy and spinal cord injuries. The nature of the research was discussed and

specifics were provided on the instrument used. A quantitative approach was adopted in this study as it lends itself to the collection of data required, and the data were gathered using a series of mailings.

Chapter IV: Results

This chapter details the results of statistical analyses conducted to address the research questions outlined in the previous chapter. The beginning of this chapter focuses on methodological issues including response rate, age of respondents and non-respondents, and the return rate of questionnaire according to booklet order while the remainder of this chapter provides results of five different statistical tests conducted in order to address the research questions of the current study.

Each section of results will begin with an explanation of the goals and description of the tests and end with a summary of the tests results. Key findings will be discussed in the following chapter.

Methodological Issues

Response Rate

As the Workbridge database dated back to 1991, many of the clients listed had not used Workbridge services in recent years and were recorded as being "inactive". As a result, fewer than the anticipated 397 subjects were available for participation in the study. The researcher also found that there were a number of duplications in the list of names and addresses provided. For those names and addresses which were recorded twice (n=17), one questionnaire was mailed. Questionnaires were not mailed to people whose address information was incomplete (n=6). The researcher presumed that listed subjects with the same name and a different address (n=28) were in fact different people and were included.

Questionnaires were sent to 374 people who either had cerebral palsy or spinal cord injuries and other types of paralysis, identified from Workbridge client lists. Seventy-two questionnaires (19%) were marked returned to sender when received by the researcher, 164 (54% response) were returned completed, and 138 were not returned. One hundred and forty seven (49% response) questionnaires were suitable for analysis; seventeen questionnaires could not be included for analysis because they had not been completed correctly (eg., activities had not been ranked in order of preference, or constraint and/or facilitator statements had not been checked). Questionnaires returned with only one or two of the three sections completed were included in the analyses. Questionnaires that had statements which had been incorrectly completed or not completed at all were not included in this study.

Table 1 summarises the response rate according to the major demographic characteristics of subjects. The typical respondent was a subject who had cerebral palsy, was male, was Pakeha/European, and who did not have School Certificate.

Seventy-three percent of respondents in this study had cerebral palsy (51% response rate) while 27% had spinal cord injuries (55% response rate). The conditions of those respondents listed as having "other paralysis" included paralysed limbs, muscular wasting, and Friedrichs Ataxia. Well over half the respondents in this study were male. Most respondents were listed as being Pakeha/European (84%). The total number of subjects available for study was also dominated by the Pakeha/European ethnic group. Information on ethnic origin was unavailable for those subjects included in the 'other' ethnicity category.

The majority (53%) of subjects had not completed any recognised school qualifications. The qualifications of those subjects who had obtained recognised qualifications were predominantly at the secondary school level (38%). These demographic trends were similar to the overall subject pool available for this study, suggesting that non-response bias was not evident based on demographic information.

An illustration of the comparability of the gender, ethnicity, and education level between subjects and the general population taken from the 1991 census is presented in Table 2.

The percentage of male subjects in this survey (59%) was greater than the percentage of males in the general population (49%). A higher percentage of Pakeha/Europeans responded compared to the percentage of Pakeha/Europeans in the general population. 'Other' ethnicities were under represented in this study compared with the general population. A greater proportion of subjects had no recognised qualifications compared to the general population.

Age of Respondents and Non-respondents

The ages of subjects targeted for this study were 18 to 45 years. Respondents and non-respondents ranged in age from 23 to 36 years at the time of the survey, and had an average age of 28.5 years. The average age of subjects who responded was 28 years and the average age of those who did not respond was 29.5 years. A t-test did not reveal any significant difference in age between the two groups. The age distribution of respondents and non-respondents is presented in Figure 3.

Table 1

Respondent and Non-respondent Characteristics

	Number of respondents (N=147)	% of respondents	Total number of surveys mailed (n=285)*	% response based on demographic characteristics
Disability				
Cerebral Palsy	107	72.8	212	50.5
Paraplegia	23	15.6	36	63.9
Tetraplegia	5	03.4	6	83.3
Other Paralysis	12	08.2	31	38.7
		100		
Gender				
Male	88	59.9	175	50.3
Female	59	40.1	110	53.6
		100		
Ethnicity				
Pakeha/European	124	84.4	212	58.5
Maori	7	04.8	29	24.1
Maori/Pakeha	6	04.1	19	31.6
Polynesian/ Pacific Island	5	03.4	14	35.7
Asian	3	02.0	5	60.0
Other	2	01.4	6	33.3
		100		
Education				
Less than school cert	78	53.1	171	45.6
School Certificate	27	18.4	52	51.9
6th form certificate	12	08.2	20	60.0
University Entrance	11	07.5	15	73.3
Bursary	6	04.1	8	75.0
Certificate or Diploma	7	04.8	13	53.8
Trade Certificate	1	00.7	1	100.0
Degree	5	03.4	5	100.0
		100		

* n excluding return to sender and incomplete questionnaires

Table 2

Comparison of Respondents and General Population*

	% of respondents(n=147)	% of general population
Gender		
Male	59.9	49.0
Female	40.1	51.0
Ethnicity		
Pakeha/European	84.4	74.4
Maori	08.9	09.7
Polynesian/ Pacific Island	03.4	03.9
Asian	02.0	02.6
Other	01.4	09.5
Education level		
Less than school cert	53.1	42.1
School Certificate	18.4	21.4
6th form certificate University Entrance	13.7	16.4
Bursary	04.1	05.6
Certificate or Diploma	04.8	13.4
Trade Certificate	00.7	11.6
Degree	03.4	05.5

* General population figures from 1991 New Zealand Census.

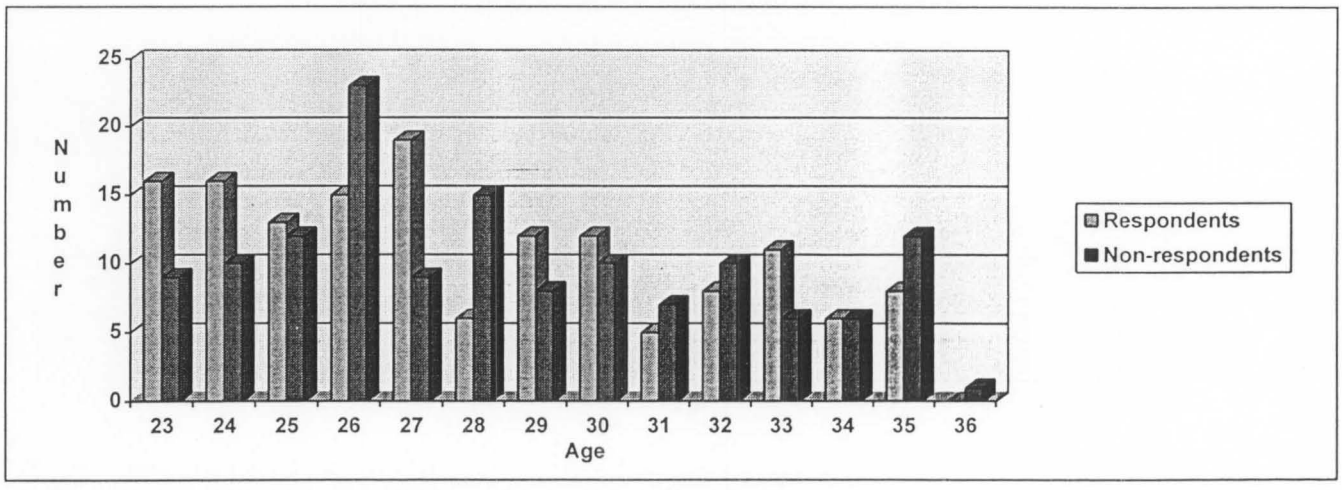


Figure 3. Age Distribution of Respondents and Non-respondents

Booklet Order

Questionnaires sent to subjects consisted of three booklets, each referring to a different leisure domain (passive, outdoor, and sport). The order in which the booklets were presented to respondents differed for each third of the population being surveyed. Table 3 shows the response rate for the 147 questionnaires able to be analysed, based on the different order of booklets.

Questionnaires beginning with the sports activities booklet yielded the lowest return rate, however the response rate was still above 29% of questionnaires returned. This booklet was the largest as it contained the section on employment and job training. Subjects may have been discouraged from completing the questionnaire as a result of being presented with the largest booklet first.

Research Question One

"Is type of activity associated with level of constraint or facilitator within each domain of leisure?".

There were thirteen constraint statements and eleven facilitator statements to be completed by subjects with regard to passive leisure, outdoor recreation, and sports activities. Subjects were required to give these responses with reference to the activity they ranked #1 and the activity they ranked as #5 selected from a list of five activity types provided for each activity domain. These statements were analysed to determine whether any significant differences existed between the activity types in relation to each of the constraint and facilitator items within each domain. A theoretical foundation of the current study was that constraints and facilitators facing subjects may vary depending on activity type, but that certain types of constraints may be homogeneous within different domains of leisure. Establishing lack of difference between types of activity within each activity domain would allow the researcher to treat the three domains as similar in subsequent analyses. Any significant differences would indicate that a given activity domain could not be considered homogeneous and could not be used as such in subsequent analysis.

One-way analyses of variance (ANOVAs) were conducted to determine whether differences existed between types of activities within activity domains based on each of the constraint/facilitator responses, since subjects answered the constraint and facilitator items

Table 3

Order of Booklets Returned

Order	Number Returned	Percentage By Order
Passive Leisure, Sports Activities & Outdoor Recreation	52	35.4
Outdoor Recreation, Passive Leisure & Sports Activities	52	35.4
Sports Activities, Outdoor Recreation & Passive Leisure	43	29.3

with specific reference to one of the five activities within each domain. Those activities having a significant difference ($p \leq .05$) on a particular constraint or facilitator statement were not treated as similar to others in their domain and were therefore not used in further statistical tests. TukeyB follow-up tests were carried out on each of the significant findings to determine the nature of the within-domain differences.

These procedures were carried out for each of the constraint items associated with activities ranked #1 and #5, facilitators associated with activities ranked #1 and #5. Means over two represent low levels of constraint/facilitator (3=disagree, 4=strongly disagree), while means under two represent high levels of constraint/facilitator (1=strongly agree, 2=agree).

Constraints Associated with Activities Ranked #1

This section details statistically significant differences found between the five activity categories that subjects ranked #1 within each activity domain based on constraint scores. Refer to Table 4 for a summary of constraint statements that were treated as homogeneous across activity domains.

Passive leisure.

Based on the thirteen constraints to the domain of passive leisure, three constraint statements produced significant differences between activity types.

The first significant difference was found in whether subjects would feel uncomfortable if they thought they were being judged on their performance on the passive leisure activity they ranked #1 ($n=146$, $df=4$, $F=4.84$, $p<.01$). Further analysis indicated that subjects who ranked playing passive games as #1 ($n= 11$, $\bar{x}=1.82$) were significantly more likely to report this constraint than subjects who reflected on the constraint in relation to going to the movies ($n=51$, $\bar{x}=2.90$), reading ($n=22$, $\bar{x}=2.77$), sports spectating ($n=20$, $\bar{x}=3.25$) and watching television ($n=42$, $\bar{x}=2.74$).

Significant differences in the reporting of constraints related to physical appearance were found between the different types of passive leisure activities ($n=146$, $df=4$, $F=5.01$, $p<.01$). Subjects who ranked sports spectating as #1 ($n=20$, $\bar{x}=2.00$) were significantly more likely than people who read ($n=22$, $\bar{x}=3.09$) and watched television ($n=42$, $\bar{x}=2.88$) to indicate concern that their physical appearance was okay while they did the activity.

Table 4

Constraint Statements and Analysis of Activities Ranked #1

Constraint Statements	Activity Domains: All Domains	Passive & Outdoor	Passive & Sports	Outdoor & Sports
I would become anxious if people were watching me do this activity	*			
I would feel uncomfortable if I thought people were judging me on my performance in this activity				*
It would be important that I thought my physical appearance was okay while I did this activity				
Work related stress would restrict my participation in this activity				*
This activity would not be appropriate for me if I could not physically manage it	*			
My physical appearance could cause me to feel depressed while I did this activity		*		
Not being able to do certain things within this activity could cause me to feel depressed	*			
I would not like this activity if I thought I could be injured	*			
I would be unlikely to do this activity if it were against my moral beliefs	*			
I would avoid this activity if it compromised my values	*			
Shyness would have been more likely to stop me from doing this activity when I was younger	*			
Sometimes I couldn't physically cope with certain aspects of this activity			*	
Family related stress would restrict my participation in this activity	*			

* = statements comparable across domains

Subjects who ranked reading as #1(n=22, $\bar{x}$=3.09) were significantly less likely to have a concern for their physical appearance while doing the activity than people who had a concern for the constraint in relation to going to the movies (n=51, $\bar{x}$=2.43).

Subjects differed in the relevance of work related stress to their most preferred passive activity depending on which passive activity they ranked #1 (n=146, df=4, F=6.15, p<.01). Subjects who ranked playing passive games as #1 (n=11, $\bar{x}$=2.27) were significantly more likely to experience this constraint than those who answered the question in reference to going to the movies (n=51, $\bar{x}$=3.18), sports spectating (n=20, $\bar{x}$=3.15) or watching television (n=42, $\bar{x}$=3.12). Subjects who ranked reading as #1 (n=22, $\bar{x}$=2.41) were found to be significantly higher on this constraint than those subjects who preferred going to the movies (n=51, $\bar{x}$=3.18), watching sport (n=20, $\bar{x}$=3.15) or watching television (n=42, $\bar{x}$=3.12).

Outdoor recreation.

One significant difference was found between the five outdoor recreation activity types subjects ranked as #1 based on the constraint statement "sometimes not being able to physically cope with certain aspects of an activity" (n=137, df=4, F=2.555, p=.04). However, subsequent follow-up tests between groups failed to reveal significant differences at the .05 level. The means for the different outdoor recreation activities in relation to this constraint suggest that subjects who ranked rock climbing (n=12, $\bar{x}$=1.83) and horse riding (n=42, $\bar{x}$=1.98) as #1 experienced this constraint more than people who preferred tramping (n=30, $\bar{x}$=2.20), fishing (n=32, $\bar{x}$=2.41) or skiing (n=21, $\bar{x}$=2.48).

Sports activities.

Subjects differed in the importance of physical appearance being "okay" while they did a sporting activity, depending on the type of sports activity they most preferred (n=142, df=4, F=3.90, p<.01). Subjects who ranked tennis (n=12, $\bar{x}$=1.92), swimming (n=66, $\bar{x}$=2.20), and running (n=12, $\bar{x}$=1.92) as #1, were significantly more likely to be concerned with their physical appearance in these activities than those subjects who ranked playing pool/snooker/billiards as #1 (n=34, $\bar{x}$=2.71).

Physical appearance causing depression was dependent on the type of activity the subject ranked #1 (n=142, df=4, F=3.56, P<.01). Subjects who preferred playing

pool/snooker/billiards (n=34, $\bar{x}$=3.26) were less concerned with this constraint than people who preferred running (n=12, $\bar{x}$=2.42) and swimming (n=66, $\bar{x}$=2.86).

Constraints Associated with Activities Ranked #5

The results from analysis of variance where statistically significant differences were found between activity types subjects ranked #5 based on constraint scores will be presented in this section. Constraint statements that can be treated as homogeneous are detailed in Table 5.

Passive leisure.

Of the thirteen constraint statements with regard to the passive leisure activities subjects ranked #5, one was found to show significant differences between activity types. Concerns about feeling uncomfortable if subjects thought they were being judged on their performance produced significant differences between passive activity types (n=146, df=4, F=3.87, p<.01). Subjects who least preferred playing passive games (n=27, $\bar{x}$=3.37) were more likely to disagree with the constraint than those who least preferred sports spectating (n=53, $\bar{x}$=2.62) and watching television (n=12, $\bar{x}$=2.42).

Outdoor recreation.

The first of two significant differences found between outdoor recreation activities subjects ranked #5 based on constraint scores involved subjects having a concern about an activity if they thought they could not physically manage it (n=137, df=4, F=2.97, p=.02). Subjects who least preferred rock climbing (n=70, $\bar{x}$=1.94) reported a higher level of constraint than those who least preferred tramping (n=19, $\bar{x}$=2.53).

The second significant difference between groups stemmed from subjects thinking that they would not like an activity if they thought they could be injured (n=137, df=4, F=3.56, p<.01). Subjects who least preferred rock climbing (n=70, $\bar{x}$=2.44) were less likely to strongly disagree with this constraint than those who least preferred horse riding (n=19, $\bar{x}$=3.58).

Sports activities.

There were no significant differences found at the .05 significance level between sports activities subjects ranked #5 based on constraint scores.

Table 5

Constraint Statements and Analysis of Activities Ranked #5

Constraint Statements	Activity Domains			
	All Domains	Passive & Outdoor	Passive & Sports	Outdoor & Sports
I would become anxious if people were watching me do this activity	*			
I would feel uncomfortable if I thought people were judging me on my performance in this activity				*
It would be important that I thought my physical appearance was okay while I did this activity	*			
Work related stress would restrict my participation in this activity	*			
This activity would not be appropriate for me if I could not physically manage it			*	
My physical appearance could cause me to feel depressed while I did this activity	*			
Not being able to do certain things within this activity could cause me to feel depressed	*			
I would not like this activity if I thought I could be injured			*	
I would be unlikely to do this activity if it were against my moral beliefs	*			
I would avoid this activity if it compromised my values	*			
Shyness would have been more likely to stop me from doing this activity when I was younger	*			
Sometimes I couldn't physically cope with certain aspects of this activity	*			
Family related stress would restrict my participation in this activity	*			

* = statements comparable across domains

Facilitators Associated with Activities Ranked #1

Statistically significant differences between the five activity types that subjects ranked #1 within each activity domain based on facilitator scores will be presented in this section. Table 6 details the facilitator statements that can be treated as homogeneous across activity domains.

Passive leisure.

An analysis of variance found that three of the eleven facilitator statements produced significant differences between passive activity types subjects ranked #1.

Subjects differed significantly on the five activity types in relation to preferring to remain independent while doing an activity ($n=146$, $df=4$, $F=6.21$, $p<.01$). Subjects who preferred to read ($n=22$, $\bar{x}=1.50$) were more likely to want to remain independent than subjects who preferred going to the movies ($n=51$, $\bar{x}=2.45$), sports spectating ($n=20$, $\bar{x}=2.65$) or watching television ($n=42$, $\bar{x}=2.36$).

Scores derived from the facilitator of preferring an activity if it was not too competitive resulted in significant differences between the passive activities subjects preferred ($n=146$, $df=4$, $F=2.57$, $p=.04$). While each of the group means represented some level of disagreement with the statement, those subjects who preferred sports spectating ($n=20$, $\bar{x}=3.50$) were more likely to disagree that they preferred the activity because it was not too competitive than those who preferred going to the movies ($n=51$, $\bar{x}=3.04$), reading ($n=22$, $\bar{x}=2.86$), playing passive games ($n=11$, $\bar{x}=2.64$) and watching television ($n=42$, $\bar{x}=3.17$).

The third significant difference between passive activity types was found in relation to subjects preferring to do an activity with people they knew ($n=146$, $df=4$, $F=8.89$, $p<.01$). Subjects who preferred going to the movies ($n=51$, $\bar{x}=1.80$) were more likely to prefer going with people they knew compared to people who preferred to read ($n=22$, $\bar{x}=2.91$) or those who watched television ($n=42$, $\bar{x}=2.43$). Subjects who preferred to play passive games ($n=11$, $\bar{x}=2.00$) were more likely to prefer doing this activity with people they knew in contrast to those who preferred to read ($n=22$, $\bar{x}=2.91$), while subjects who preferred sports spectating ($n=20$, $\bar{x}=2.10$) were more likely to prefer doing this activity with people they knew than were subjects who preferred watching television ($n=42$, $\bar{x}=2.43$).

Table 6

Facilitator Statements and Analysis of Activities Ranked #1

Facilitator Statements	Activity Domains: All Domains	Passive & Outdoor	Passive & Sports	Outdoor & Sports
I would prefer to remain independent in this activity				*
I would be less likely to become shy if I knew the people around me while I did this activity	*			
I would not be self-conscious if I was familiar with this activity.	*			
I would prefer this activity if it was not too competitive				*
I would become more confident in myself through participating in this activity	*			
I continue with this activity because I enjoy it.		*		
I would do this activity because I am unable to do the things I used to	*			
I would feel less anxious after doing this activity for the first time			*	
I would continue with this activity because it is similar to what I used to do when I was younger	*			
I would choose to do this activity because I can manage it	*			
I would prefer to do this activity with people I know				*

* = statements comparable across domains

Outdoor recreation.

Based on the facilitator statement "I feel less anxious after doing this activity for the first time", a significant difference was found between the five outdoor recreation activity types subjects ranked #1 ($n=137$, $df=4$, $F=4.22$, $p<.01$). Subjects who preferred fishing ($n=32$, $\bar{x}=2.53$) were more likely to disagree with this facilitator than those who preferred tramping ($n=30$, $\bar{x}=2.10$), horse riding ($n=42$, $\bar{x}=1.95$), and skiing ($n=21$, $\bar{x}=1.95$).

Sports activities.

Subjects differed on continuing because of their enjoyment of an activity depending on which sports activity they preferred ($n=142$, $df=4$, $F=4.30$, $p<.01$). People who preferred to play pool/snooker/billiards ($n=34$, $\bar{x}=1.32$) were more likely to agree that they would continue with the activity because they enjoyed it than people who preferred to play tennis ($n=12$, $\bar{x}=2.00$), swim ($n=66$, $\bar{x}=1.82$) and run ($n=12$, $\bar{x}=2.08$), although all of the means indicate that responses to each of the activity types, in general, agreed with the statement.

Facilitators Associated with Activities Ranked #5

Analyses of variance were carried out on facilitator statements in conjunction with activity types subjects ranked #5 for the passive leisure, outdoor recreation, and sports activity domains. Significant differences were followed up with TukeyB tests, the results of both being presented in this section. Table 7 outlines those facilitator statements that can be treated as homogeneous across activity domains.

Passive leisure.

A significant difference existed between passive activities subjects least preferred based on doing an activity because they were unable to do the things they used to ($n=146$, $df=4$, $F=3.61$, $p<.01$). Subjects who least preferred going to the movies ($n=18$, $\bar{x}=2.11$) disagreed that they did this activity because they were unable to do things they used to but not as strongly as those who least preferred to read ($n=36$, $\bar{x}=2.94$) or play passive games ($n=27$, $\bar{x}=3.00$).

Table 7

Facilitator Statements and Analysis of Activities Ranked #5

Facilitator Statements	Activity Domains: All Domains	Passive & Outdoor	Passive & Sports	Outdoor & Sports
I would prefer to remain independent in this activity	*			
I would be less likely to become shy if I knew the people around me while I did this activity	*			
I would not be self-conscious if I was familiar with this activity.	*			
I would prefer this activity if it was not too competitive	*			
I would become more confident in myself through participating in this activity	*			
I continue with this activity because I enjoy it.		*		
I would do this activity because I am unable to do the things I used to				*
I would feel less anxious after doing this activity for the first time	*			
I would continue with this activity because it is similar to what I used to do when I was younger	*			
I would choose to do this activity because I can manage it	*			
I would prefer to do this activity with people I know	*			

* = statements comparable across domains

Outdoor recreation.

Continuing with an activity because it was enjoyable was the basis for significant differences between outdoor recreation activities subjects ranked #5 (n=137, df=4, F=2.67, p=.04). Subsequent follow-up tests between groups did not reveal any significant differences at the .05 level. Based on this facilitator, the means suggested that people who least preferred tramping (n=19, $\bar{x}$=2.11) and rock climbing (n=70, $\bar{x}$=2.11) disagreed that they continued with these activities because they enjoyed them whereas people who least preferred horse riding (n=19, $\bar{x}$=1.63), fishing (n=13, $\bar{x}$=1.62) and skiing (n=16, $\bar{x}$=1.56) reported that they would continue with these activities because they enjoyed them.

Sports activities.

There were no significant differences at the .05 level between the five sports activity types subjects ranked #5 based on facilitator scores.

Analysis Summary

Analysis of variance revealed a small number of differences between activity types based on the scores derived from constraint and facilitator statements in regard to activities subjects ranked #1 and #5. Constraint and facilitator statements exhibiting statistically significant differences between activity types were further analysed in order to determine where the significant differences occurred. The results of the TukeyB follow-up tests were presented to highlight the specific activity types that were significantly different from others based on constraint and facilitator statement scores across activity domains. The constraint and facilitator statements that revealed significant differences within activity domains were not included when treating domains as homogeneous in subsequent analyses. Tables 4 to 7 outline the constraint and facilitator statements that could be treated as homogeneous across activity domains.

Research Question Two

"Are liking of activity, previous involvement and type of disability associated with level of constraint across leisure domains?"

The relationship between how much subjects liked the activity they ranked #1, previous involvement in the activity, their disability type and intrapersonal constraints and facilitators was investigated using multiple linear regression. This section provides a summary of the multiple linear regression procedure. Multiple linear regression is a method of concurrently measuring the effects of several factors or independent variables on a dependent variable (Schroeder et al., 1986). The dependent variables in this section of analyses were the thirteen constraint and eleven facilitator statements, each analysed individually. A summary of each significant ($p<.05$) test result is presented accompanied by an explanation of the findings.

Interpreting Multiple Linear Regression

In order to interpret the results of a multiple linear regression a number of statistics must be obtained. The *regression coefficient* (B) is a number indicating the values of a dependent variable associated with the values of independent variables (Vogt, 1993). The *beta coefficient* (β) is the standardised measure of change in the dependent variable accounted for by an increase or decrease of one standard deviation in one independent variable while controlling for the effects of other independent variables (Schroeder, Sjoquist, & Stephan, 1986). The *part correlation coefficient* is the "correlation between Y [the dependent variable] and X_i [each independent variable] when the linear effects of the other independent variables have been removed from X_i" (Norusis, 1990, p. 272). The correlation between each of the independent variables and the dependent variable when the linear effect of the other independent variables have been removed from *both* X_1 and Y is known as the *partial correlation* (Norusis, 1990). This measure provides the best indication of the relationship between a given independent variable and the dependent variable because the effects of the other independent variables are completely controlled. The partial correlation coefficient will always be smaller than the correlation between the independent variable and the dependent variable unless the other independent variables are totally unrelated to the dependent and independent variables used in the analysis. The

coefficient of multiple correlation (R) indicates the degree to which variation in the dependent variable is associated with variations in the independent variables taken simultaneously (Schroeder et al., 1986). The *coefficient of multiple determination* (R^2), also known as the proportion of variance explained, "measures the percentage of the variation in the dependent variable which is explained by variations in the independent variables taken together" (Schroeder et al., 1986, p. 33). The regression coefficient, beta coefficient, and partial correlation coefficient for each of the analyses in the present study will be reported in tabular form to assist in the interpretation of significant results.

Of concern in multiple linear regression is the extent to which independent variables in the analysis are correlated. *Multicollinearity* occurs when two or more independent variables used in the regression are not independent but are, in fact, highly correlated with each other (Schroeder et al. 1986); determining the separate effects of such variables on the dependent variable becomes difficult. A check for highly correlated coefficients was carried out between each of the independent variables in the present study and it was found that multicollinearity did not exist ($r<.100$, $p<.05$) between the three independent variables being used in this analysis.

Subjects who were missing data on any of the independent or dependent variables were excluded from the regression analysis. One subject was excluded from the passive leisure analyses, nine subjects from the outdoor recreation analyses, and five subjects were excluded from the sports activity analyses.

The results of multiple linear regression analyses to determine the relationships between liking of activity, previous involvement, disability type, and constraint statements are presented in this section. Refer to Table 8 for a summary of all regression analyses based on constraint statements.

Passive Leisure

The results of multiple linear regression analyses conducted to determine the variation in each of the thirteen constraint items based on variation within the three independent variables are presented in this section. Significant linear regressions or relationships between constraints and independent variables are reported; refer to Table 9 for a summary of Pearson correlations.

Table 8

Summary of Pearson Correlations Between Liking of Activity, Previous Involvement, Type of Disability, and Constraints to Activities Ranked #1 ($p<.05$).

	Passive			Outdoor			Sport		
	**Liking of Activity	***Previous Involvement	****Type of Disability	Liking of Activity	Previous Involvement	Type of Disability	Liking of Activity	Previous Involvement	Type of Disability
* **Constraint Statement**									
I would become anxious if people were watching me do this activity.	(+)	n/s	n/s	n/s	n/s	n/s	(+)	n/s	(-)
I would feel uncomfortable if I thought people were judging me on my performance in this activity.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
It would be important that my appearance is okay while I did this activity.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Work related stress would restrict my participation in this activity.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
This activity would not be appropriate for me if I could not manage it.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
My physical appearance could cause me to feel depressed while I did this activity.	n/s	n/s	n/s	(-)	n/s	n/s	n/s	n/s	n/s
Not being able to do certain things within this activity could cause me to feel depressed.	n/s	(+)	n/s	n/s	n/s	n/s	n/s	n/s	n/s
I would not like this activity if I thought I could be injured.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
I would be unlikely to do this activity if it were against my moral beliefs.	n/s	n/s	(-)	n/s	n/s	n/s	n/s	n/s	n/s
I would avoid this activity if it compromised my values.	n/s	n/s	(-)	n/s	n/s	n/s	(-)	n/s	n/s
Shyness would have been more likely to stop me from doing this activity when I was younger.	n/s	(+)	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Sometimes I couldn't physically cope with certain aspects of the activity.	n/s	(+)	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Family related stress would restrict my participation in this activity.	n/s	n/s	n/s	n/s	(-)	n/s	n/s	n/s	n/s

*Constraint Statements (1=strongly agree, 4= strongly disagree), *** Previous Involvement (1=yes, 2=no),
** Liking of Activity (1=strongly dislike, 5=like very much), **** Type of Disability (0=cerebral palsy, 1= spinal cord injuries), n/s = not significant

Table 9

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Constraints Associated with Passive Leisure Activities Ranked #1.

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would become anxious if people were watching me do this activity.						
	Liking activity	0.2918	0.2531	0.2502	3.079	0.0025
	Previous involvement	-0.1792	-0.0257	-0.0262	-0.312	0.7551
	Disability type	0.2239	0.1231	0.1260	1.514	0.1323
$R^2 = .072$, $F = 3.71$, $p = .013$						
I would feel uncomfortable if I thought people were judging me on my performance in this activity						
	Liking activity	0.1589	0.1197	0.1179	1.415	0.1593
	Previous involvement	0.1185	0.0148	0.0146	0.174	0.8618
	Disability type	0.1175	0.0562	0.0562	0.671	0.5035
$R^2 = .017$, $F = 0.84$, $p = .475$						
It would be important that I thought my physical appearance was okay while I did this activity						
	Liking activity	0.0538	0.0389	0.0386	0.460	0.6461
	Previous involvement	1.0611	0.1266	0.1248	1.499	0.1360
	Disability type	0.0669	0.0306	0.0307	0.366	0.7147
$R^2 = .020$, $F = 0.99$, $p = .400$						
Work related stress would restrict my participation in this activity						
	Liking activity	0.0403	0.0330	0.0329	0.392	0.6957
	Previous involvement	0.5170	0.0699	0.0695	0.830	0.4078
	Disability type	-0.2773	-0.1439	-0.1434	-1.726	0.0864
$R^2 = .027$, $F = 1.29$, $p = .278$						

Table continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
This activity would not be appropriate for me if I could not physically manage it						
	Liking activity	0.0681	0.0502	0.0495	0.591	0.5554
	Previous involvement	0.1716	0.0209	0.0206	0.246	0.8060
	Disability type	0.1688	0.0789	0.0785	0.938	0.3497
$R^2 = .009$, $F = 0.43$, $p = .726$						
My physical appearance could cause me to feel depressed while I did this activity						
	Liking activity	0.0330	0.0289	0.0287	0.342	0.7329
	Previous involvement	0.6590	0.0952	0.0942	1.127	0.2616
	Disability type	-0.1879	-0.1041	-0.1040	-1.246	0.2149
$R^2 = .021$, $F = 0.99$, $p = .396$						
Not being able to do certain things within this activity could cause me to feel depressed						
	Liking activity	0.0655	0.0560	0.0568	0.678	0.4991
	Previous involvement	1.4819	0.2094	0.2079	2.533	0.0124
	Disability type	-0.2143	-0.1161	-0.1183	-1.420	0.1579
$R^2 = .062$, $F = 3.11$, $p = .028$						
I would not like this activity if I thought I could be injured						
	Liking activity	0.0976	0.0697	0.0686	0.819	0.4141
	Previous involvement	0.0842	0.0099	0.0098	0.117	0.9072
	Disability type	0.0304	0.0138	0.0137	0.164	0.8702
$R^2 = .005$, $F = 0.25$, $p = .861$						
I would be unlikely to do this activity if it were against my moral beliefs						
	Liking activity	-0.0186	-0.0131	-0.0131	-0.156	o.8765
	Previous involvement	0.1918	0.0223	0.0223	0.266	0.7909
	Disability type	-0.4006	-0.1787	-0.1778	-2.150	0.0332
$R^2 = .032$, $F = 1.54$, $p = .206$						

Table continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would avoid this activity if it compromised my values						
	Liking activity	-0.0688	-0.0515	-0.0514	-0.614	0.5403
	Previous involvement	0.2522	0.0311	0.0312	0.372	0.7107
	Disability type	-0.4170	-0.1972	-0.1961	-2.383	0.0185
$R^2 = .040$, $F = 1.95$, $p = .124$						
Shyness would have been more likely to stop me from doing this activity when I was younger						
	Liking activity	0.1752	0.1684	0.1665	2.012	0.0461
	Previous involvement	0.4577	0.0727	0.0727	0.868	0.3866
	Disability type	-0.0361	-0.0220	-0.0222	-0.265	0.7914
$R^2 = .038$, $F = 1.88$, $p = .134$						
Sometimes I couldn't physically cope with certain aspects of this activity						
	Liking activity	0.1153	0.1071	0.1120	1.343	0.1813
	Previous involvement	2.0759	0.3185	0.3179	3.995	0.0001
	Disability type	-0.1268	-0.0746	-0.0791	-0.946	0.3457
$R^2 = .127$, $F = 6.89$, $p < .001$						
Family related stress would restrict my participation in this activity						
	Liking activity	0.0519	0.0411	0.0409	0.488	0.6265
	Previous involvement	0.4476	0.0586	0.0582	0.695	0.4880
	Disability type	-0.2680	-0.1347	-0.1342	-1.614	0.1088
$R^2 = .024$, $F = 1.15$, $p = .331$						

The three independent variables produced a significant linear regression (F=3.71, p=.01); 7.2% of the variation in becoming anxious when people were watching subjects do an activity was explained by variations in the three independent variables. The partial correlation suggested that liking the activity had the greatest relationship to subjects becoming anxious when being watched by other people (T=3.08, p=.003). A positive correlation between liking the activity and becoming anxious if other people were watching (r=.240) indicated that the more subjects liked the passive activity they ranked #1, the more likely they were to disagree that they became anxious when other people were watching them do the activity, since a higher score on the constraint indicates disagreement with the statement. Previous involvement in the activity and disability type were not significantly related to subjects' level of constraint.

A significant linear regression (F= 3.11, p= .03) was produced by the three independent variables, with the independent variables accounting for 6.2% of the variation in the constraint "not being able to do certain things within this activity could cause me to feel depressed". The independent variable that had the greatest relationship was previous involvement in the activity (T= 2.53, p= .01) which was positively correlated with the constraint (r=.210). Subjects who had no previous involvement in the activity were more likely to report that not being able to do certain things could cause them to become depressed. Liking the activity and disability type were not significantly related to this constraint.

There was a significant linear relationship (F= 6.89, p<.001) between the constraint "sometimes I couldn't physically cope with certain aspects of this activity" and the three independent variables; variation in the independent variables accounted for 12.7% variation in the constraint. Previous involvement in the activity was the only independent variable to show a significant relationship with the constraint (T= 4.00, p<.001). A positive correlation (r=.330) indicated that subjects who had no previous involvement in the activity they ranked #1 were more likely to report not being able to physically cope with certain aspects of the activity. Liking the activity and disability type were not significantly related to this constraint.

Additional significant relationships between independent and dependent variables were found for three of the constraint items, although the combination of independent variables did not produce a significant regression.

The relationship between disability type and being unlikely to do the activity if it was against a subject's moral beliefs was significant (T=-2.15, p= .03). A negative correlation (r=-.176) indicated that subjects who had spinal cord injuries were more likely to avoid the activity they ranked #1 if it were against their moral beliefs than those who had cerebral palsy.

A significant relationship existed between the disability type of subjects and avoiding an activity if it compromised subjects' values (T=-2.38, p=.02). Disability type and this constraint were negatively correlated (r=-.191) which suggested that subjects who had spinal cord injuries were more likely to avoid an activity if it compromised their values than those who had cerebral palsy.

Liking the activity was shown to have a significant relationship with shyness restricting participation in the activity when subjects were younger (T=2.01, p<.05). A positive correlation between the independent and dependent variables (r=.182) suggested that the more subjects liked the passive activity they ranked #1 the less likely shyness would have stopped them from participating in this activity when they were younger.

Outdoor Recreation

Multiple linear regression analyses were conducted to determine the variation in each of the thirteen constraint items to outdoor recreation related to variations within the three independent variables. Significant linear regressions and significant relationships between independent and dependent variables are reported in this section. One significant variation in a constraint item resulting from variation in the three independent variables was revealed by multiple regression analysis. Table 10 summarises correlations.

The three independent variables produced a significant linear regression (F= 2.67, p= .05) for this constraint. Variations in the independent variables accounted for 5.6% of the variation in the constraint "I would become anxious if people were watching me do this activity". Despite no significant relationships existing between the three independent variables and this constraint, disability type was revealed by the partial correlation as being the most influential of the three independent variables (T= 1.59, p=.15). Disability type was negatively correlated with this constraint (r=-.148) which suggested that subjects who had spinal cord injuries were more likely to become anxious if people were watching them than were subjects who had cerebral palsy.

Table 10

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Constraints Associated with Outdoor Recreation Activities Ranked #1.

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would become anxious if people were watching me do this activity						
	Liking activity	0.1138	0.1396	0.1235	1.441	0.1519
	Previous involvement	0.1262	0.0718	0.0632	0.733	0.4649
	Disability type	-0.2434	-0.1354	-0.1363	-1.593	0.1135
$R^2 = .056$, $F = 2.67$, $p = .050$						
I would feel uncomfortable if I thought people were judging my performance in this activity						
	Liking activity	-0.0092	-0.0105	-0.0092	-0.106	0.9157
	Pervious involvement	0.0589	0.0311	0.0268	0.310	0.7571
	Disability type	-0.1696	-0.0877	-0.0867	-1.007	0.3156
$R^2 = .009$, $F = 0.41$, $p = .743$						
It would be important that I thought my physical appearance was okay while I did this activity						
	Liking activity	1.349786E-04	1.6484E-04	0.0001	0.002	0.9987
	Previous involvement	0.0527	0.0298	0.0256	0.297	0.7673
	Disability type	0.1212	0.0671	0.0663	0.769	0.4432
$R^2 = .005$, $F = 0.22$, $p = .885$						
Work related stress would restrict my participation in this activity						
	Liking activity	0.1398	0.1667	0.1458	1.706	0.0903
	Previous involvement	-0.3000	-0.1656	-0.1435	-1.679	0.0956
	Disability type	-0.2610	-0.1410	-0.1408	-1.647	0.1020
$R^2 = .042$, $F = 1.95$, $p = .125$						

Table Continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
This activity would not be appropriate for me if I could not physically manage it						
	Liking activity	-0.0670	-0.0802	-0.0696	-0.808	0.4207
	Previous involvement	0.1850	0.1026	0.0880	1.023	0.3083
	Disability type	0.0316	0.0172	0.0170	0.197	0.8439
R^2 = .009, F = 0.39, p= .762						
My physical appearance could cause me to feel depressed while I did this activity						
	Liking activity	0.1571	0.1972	0.1717	2.018	0.0456
	Previous involvement	0.0103	0.0060	0.0052	0.061	0.9518
	Disability type	-0.0086	-0.0049	-0.0049	-0.057	0.9547
R^2 = .040, F = 1.87, p= .138						
Not being able to do certain things within this activity could cause me to feel depressed						
	Liking activity	-0.0187	-0.0242	-0.0210	-0.243	0.8083
	Previous involvement	-0.0898	-0.0537	-0.0461	-0.534	0.5944
	Disability type	-0.0614	-0.0359	-0.0355	-0.412	0.6813
R^2 = .005, F = 0.24, p= .865						
I would not like this activity if I thought I could be injured						
	Liking activity	0.1437	0.1707	0.1492	1.747	0.0829
	Previous involvement	0.0436	0.0240	0.0210	0.243	0.8081
	Disability type	0.1675	0.0902	0.0906	1.053	0.2941
R^2 = .041, F = 1.90, p= .133						
I would be unlikely to do this activity if it were against my moral beliefs						
	Liking activity	-0.1250	-0.1348	-0.1169	-1.363	0.1752
	Previous involvement	0.1438	0.0718	0.0620	0.719	0.4734
	Disability type	-0.1104	-0.0540	-0.0537	-0.622	0.5348
R^2 = -.005, F= 0.79, p= .499						

Table continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would avoid this activity if it compromised my values						
	Liking activity	-0.0209	-0.0229	-0.0199	-0.231	0.8179
	Previous involvement	0.0396	0.0201	0.0173	0.200	0.8419
	Disability type	-0.1317	-0.0655	-0.0647	-0.750	0.4543
$R^2 = .005$, $F = 0.23$, $p = .877$						
Shyness would have been more likely to stop me from doing this activity when I was younger						
	Liking activity	0.0170	0.0201	0.0174	0.201	0.8408
	Previous involvement	-0.0233	-0.0128	-0.0110	-0.127	0.8992
	Disability type	-0.0152	-0.0082	-0.0080	-0.093	0.9258
$R^2 = .000$, $F = 0.01$, $p = .997$						
Sometimes I couldn't physically cope with certain aspects of this activity						
	Liking activity	-0.0554	-0.0670	-0.0583	-0.676	0.4999
	Previous involvement	0.2109	0.1181	0.1014	1.180	0.2401
	Disability type	0.1237	0.0678	0.0673	0.781	0.4365
$R^2 = .013$, $F = 0.59$, $p = .623$						
Family related stress would restrict my participation in this activity						
	Liking activity	0.110	0.1376	0.1204	1.403	0.1628
	Previous involvement	-0.3704	-0.2126	-0.1823	-2.147	0.0336
	Disability type	-0.0511	-0.0287	-0.0288	-0.334	0.7391
$R^2 = .034$, $F = 1.58$, $p = .196$						

Sports Activities

To determine whether significant relationships existed between liking the activity , previous involvement, disability type and constraints to sports activities ranked #1, multiple linear regression was carried out. Significant regressions resulting from variations in the three dependent variables are reported in this section as are significant relationships between independent and dependent variables. One significant multiple linear regression resulted from variation in the three independent variables. Refer to Table 11 for a summary of correlations.

A significant linear regression ($F= 4.21$, $p<.01$) was produced by the three independent variables; 8.2% of the variation in the constraint "I would become anxious if people were watching me do this activity" was explained by variation in the three independent variables. Liking the activity was most influential on this constraint ($T= 2.13$, $p=.03$). A positive correlation ($r=.208$) indicated that the more a subject liked the activity the less anxious they were about being watched by other people. Disability type was also significantly related to this constraint ($T=-2.01$, $p<.05$). A negative correlation ($r=-.144$) indicated that subjects who had spinal cord injuries were more likely to become anxious if other people were watching them do the activity than were people with cerebral palsy.

An additional significant relationship ($T=-2.09$, $p=.04$) between liking an activity and avoiding an activity if a subject's values were compromised was found. The two variables were negatively correlated ($r=-.197$) which indicated that subjects who liked the sports activity in question were more likely to avoid it if it compromised their values than those who did not like the activity.

Analysis Summary

Multiple linear regression revealed significant linear regressions between constraint statements (dependent variables) and liking the activity, previous involvement, and disability type (independent variables), over the three activity domains used in the current study. Significant relationships between dependent and independent variables were also revealed and reported.

Variation in the three independent variables produced a significant linear regression in the dependent variable "I would become anxious if people were watching me do this activity" across the three activity domains. The passive leisure activity domain displayed the greatest number of significant linear regressions and significant relationships between

Table 11

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Constraints Associated with Sports Activities Ranked #1.

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would become anxious if people were watching me do this activity						
	Liking activity	0.1997	0.1841	0.1786	2.132	0.0348
	Previous involvement	0.2966	0.1234	0.1212	1.435	0.1536
	Disability type	-0.3057	-0.1645	-0.1687	-2.010	0.0464
$R^2 = .084$, $F = 4.21$, $p = .007$						
I would feel uncomfortable if I thought people were judging me on my performance in this activity						
	Liking activity	0.1400	0.1272	0.1223	1.448	0.1499
	Previous involvement	0.3639	0.1493	0.1437	1.706	0.0903
	Disability type	-0.0932	-0.0494	-0.0505	-0.594	0.5536
$R^2 = .052$, $F = 2.50$, $p = .062$						
It would be important that I thought my physical appearance was okay while I did this activity						
	Liking activity	0.0072	0.0067	0.0063	0.075	0.9407
	Previous involvement	0.1406	0.0589	0.0563	0.662	0.5090
	Disability type	-0.2376	-0.1288	-0.1284	-1.521	0.1306
$R^2 = .020$, $F = 0.93$, $p = .430$						
Work related stress would restrict my participation in this activity						
	Liking activity	0.0440	0.0404	0.0387	0.455	0.6501
	Previous involvement	-0.1591	-0.0660	-0.0632	-0.744	0.4579
	Disability type	-0.2903	-0.1557	-0.1553	-1.847	0.0670
$R^2 = .028$, $F = 1.32$, $p = .270$						

Table continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
This activity would not be appropriate for me if I could not physically manage it						
	Liking activity	-0.0124	-0.0118	-0.0113	-0.133	0.8943
	Previous involvement	0.3839	0.1652	0.1569	1.866	0.0641
	Disability type	0.0974	0.0542	0.0547	0.644	0.5208
R^2 = .030, F = 1.40, p= .246						
My physical appearance could cause me to feel depressed while I did this activity						
	Liking activity	0.0910	0.0922	0.0880	1.038	0.3010
	Previous involvement	0.1445	0.0661	0.0635	0.747	0.4562
	Disability type	-0.2232	-0.1320	-0.1323	-1.568	0.1191
R^2 = .,031 F = 1.49, p= .220						
Not being able to do certain things within this activity could cause me to feel depressed						
	Liking activity	-0.0177	-0.0161	-0.0154	-0.181	0.8570
	Previous involvement	0.1178	0.0484	0.0463	0.544	0.5872
	Disability type	-0.2537	-0.1348	-0.1343	-1.592	0.1136
R^2 = .020, F = 0.95, p= .417						
I would not like this activity if I thought I could be injured						
	Liking activity	0.1440	0.1425	0.1347	1.597	0.1125
	Previous involvement	-0.1575	-0.0704	-0.0673	-0.792	0.4298
	Disability type	-0.1220	-0.0705	-0.0708	-0.834	0.4058
R^2 = .022, F = 1.04, p= .375						
I would be unlikely to do this activity if it were against my moral beliefs						
	Liking activity	-0.0863	-0.0768	-0.7287	-0.858	0.3922
	Previous involvement	-0.1884	-0.0757	-0.071	-0.849	0.3973
	Disability type	-0.0300	-0.0156	-0.0157	-0.184	0.8543
R^2 = .016, F= 0.74, p= .528						

Table continues

Constraint	Factor	b	Beta (β)	Partial	T	Sig. T
I would avoid this activity if it compromised my values						
	Liking activity	-0.1972	-0.1837	-0.1748	-2.086	0.0388
	Previous involvement	-0.0375	-0.0158	-0.0153	-0.180	0.8576
	Disability type	-0.1656	-0.0914	-0.0914	-1.078	0.2827
$R^2 = .047$, F = 2.28, p= .083						
Shyness would have been more likely to stop me from doing this activity when I was younger						
	Liking activity	0.0355	0.0321	0.0304	0.357	0.7216
	Previous involvement	-0.0079	-0.0030	-0.0032	-0.036	0.9715
	Disability type	0.1082	0.0570	0.0570	0.671	0.5034
$R^2 = .005$, F = 0.21, p= .889						
Sometimes I couldn't physically cope with certain aspects of this activity						
	Liking activity	-0.0068	-0.0059	-0.0056	-0.066	0.9472
	Previous involvement	0.1701	0.o674	0.0641	0.755	0.4515
	Disability type	-0.1919	-0.0983	-0.0981	-1.158	0.2490
$R^2 = .014$, F = 0.64, p= .591						
Family related stress would restrict my participation in this activity						
	Liking activity	0.0536	0.0516	0.0488	0.574	0.5669
	Previous involvement	-0.0150	-0.0065	-0.0062	-0.073	0.9419
	Disability type	-0.1342	-0.0754	-0.0752	-0.886	0.3774
$R^2 = .007$, F = 0.35, p= .792						

dependent and independent variables. The results of significant linear regressions and significant relationships between dependent and independent will be discussed in Chapter V.

Research Question Three

"Are liking of activity, previous involvement, and type of disability associated with level of facilitator within each leisure domain?"

To determine the variation in each of the eleven facilitator items based on variation in the three independent variables, multiple linear regression analyses were conducted. Resulting significant linear regressions and significant relationships between facilitators and independent variables are presented in this section. Table 12 provides a summary of relationships based on facilitator statements.

Passive Leisure

The results of multiple linear regression analyses conducted to determine the variation in each of the eleven facilitator items based on variation within the three independent variables is presented in this section. Significant linear regressions or relationships between facilitators and independent variables are reported; refer to Table 13 for details of correlations.

A significant linear regression ($F=4.11$, $p<.01$) was produced by the three independent variables which accounted for 8% of the variation in the facilitator "I continue with this activity because I enjoy it". Liking the activity was the independent variable which showed the greatest relationship ($T=-3.07$, $p=.003$). Liking the activity subjects ranked #1 and continuing with the activity because they enjoyed it, were negatively correlated ($r=-.255$) indicating that the more a subject liked an activity the more likely they were to agree that they would continue because they enjoyed it.

Variation in the three independent variables produced a significant linear regression with the facilitator ($F=8.11$, $p<.001$); 14.6% of the variation in the facilitator "I would do this activity because I am unable to do the things I used to" being explained by variation in the independent variables. The partial correlation indicated that disability type was significantly related to this facilitator ($T=-4.51$, $p<.001$). A negative correlation ($r=-.334$)

Table 12

Summary of Pearson Correlations Between Liking of Activity, Previous Involvement, Type of Disability, and Facilitators to Activities Ranked #1 ($p<.05$).

	Passive			Outdoor			Sport		
	**Liking of Activity	***Previous Involvement	****Type of Disability	Liking of Activity	Previous Involvement	Type of Disability	Liking of Activity	Previous Involvement	Type of Disability
* **Facilitator Statement**									
I would prefer to remain independent in this activity.	n/s	n/s	n/s	(-)	n/s	(-)	(-)	n/s	n/s
I would be less likely to become shy if I knew the people around me while I did this activity.	(+)	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
I would not be self-conscious if I was familiar with this activity.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
I would prefer this activity if it was not too competitive.	n/s	n/s	n/s	n/s	n/s	n/s	(+)	n/s	n/s
I would become more confident in myself through participating in this activity.	n/s	n/s	n/s	(-)	n/s	n/s	n/s	n/s	n/s
I continue with this activity because I enjoy it.	(-)	n/s	n/s	(-)	n/s	n/s	(-)	(-)	n/s
I would do this activity because I am unable to do the things I used to.	n/s	n/s	(-)	n/s	n/s	(-)	n/s	n/s	(-)
I would feel less anxious after doing this activity for the first time.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
I would continue with this activity because it is similar to what I used to do when I was younger.	n/s	n/s	n/s	n/s	n/s	n/s	(-)	n/s	n/s
I would choose to do this activity because I can manage it.	n/s	n/s	n/s	(-)	n/s	n/s	n/s	(-)	n/s
I would prefer to do this activity with people I know.	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s

*Facilitator Statements (1=strongly agree, 4= strongly disagree), *** Previous Involvement (1=yes, 2=no)
** Liking of Activity (1=strongly dislike, 5=like very much), **** Type of Disability (0=cerebral palsy, 1= spinal cord injuries), n/s = not significant

Table 13

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Facilitators Associated with Passive Leisure Activities Ranked #1.

	Factor	b	Beta (β)	Partial	T	Sig. T
I would prefer to be independent in this activity						
	Liking activity	-0.0472	-0.0359	-0.0352	-0.421	0.6741
	Previous involvement	-0.1543	-0.0194	-0.0191	-0.228	0.8203
	Disability type	-0.1044	-0.0503	-0.0500	-0.597	0.5513
$R^2 = .004$, F = 0.20, p= .893						
I would be less likely to become shy if I knew the people around me while I did this activity						
	Liking activity	0.2937	0.2182	0.2151	2.625	0.0096
	Previous involvement	0.3092	0.0380	0.0383	0.457	0.6486
	Disability type	0.0588	0.0277	0.0282	0.337	0.7370
$R^2 = .052$, F = 2.58, p= .056						
I would not be self-conscious if I was familiar with the activity						
	Liking activity	-0.1094	-0.0796	-0.0785	-0.938	0.3499
	Previous involvement	0.1297	0.0156	0.0154	0.184	0.8545
	Disability type	-0.1590	-0.0733	-0.0731	-0.873	0.3841
$R^2 = .011$, F = 0.50, p= .680						
I would prefer this activity if it were not too competitive						
	Liking activity	-0.0180	-0.0150	-0.0148	-0.176	0.8602
	Previous involvement	0.6528	0.0895	0.0883	1.056	0.2929
	Disability type	-0.1620	-0.0852	-0.0850	-1.016	0.3113
$R^2 = .014$, F = 0.66, p= .577						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would become more confident in myself through participating in this activity						
	Liking activity	0.0200	0.0149	0.0147	0.176	0.8609
	Previous involvement	-0.1644	-0.0203	-0.0200	-0.239	0.8115
	Disability type	0.1969	0.0933	0.0927	1.110	0.2690
R^2 = .009, F = 0.42, p= .740						
I continue with this activity because I enjoy it						
	Liking activity	-0.1923	-0.2509	-0.2491	-3.065	0.0026
	Previous involvement	0.1268	0.0273	0.0280	0.334	0.7389
	Disability type	0.1414	0.1170	0.1203	1.444	0.1509
R^2 = .080, F =4.11 , p= .008						
I would do this activity because I am unable to do the things I used to						
	Liking activity	-0.0922	-0.0678	-0.0720	-0.860	0.3910
	Previous involvement	1.5354	0.1866	0.1948	2.367	0.0193
	Disability type	-0.7547	-0.3520	-0.3541	-4.511	0.0000
R^2 = .146, F = 8.11, p= .0001						
I would feel less anxious after doing this activity for the first time						
	Liking activity	0.11819	0.1376	0.1368	1.646	0.1019
	Previous involvement	0.9798	0.1225	0.1220	1.465	0.1452
	Disability type	-0.0640	-0.0307	-0.0311	-0.371	0.7113
R^2 = .040, F = 1.99, p= .118						
I would continue with this activity because it is similar to what I used to do when I was younger						
	Liking activity	-0.1024	-0. 0851	-0.0840	-1.005	0.3168
	Previous involvement	-0.1178	-0.0162	-0.0160	-0.191	0.8488
	Disability type	-0.1676	-0.0883	-0.0881	-1.054	0.2938
R^2 = .015, F = 0.71, p= .545						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would choose to do this activity because I can manage it						
	Liking activity	2.752546E-04	2.6185E-04	0.0003	0.003	0.9975
	Previous involvement	0.3555	0.0559	0.0555	0.662	0.5090
	Disability type	0.2193	0.1322	0.1317	1.583	0.1156
$R^2 = .022$, F = 1.05, p= ..373						
I would prefer to do this activity with people I know						
	Liking activity	-0.0194	-0.0159	-0.0157	-0.187	0.8518
	Previous involvement	0.7504	0.1015	0.0998	1.196	0.2339
	Disability type	-0.0584	-0.0303	-0.0302	-0.361	0.7189
$R^2 = .010$, F = 0.50, p= .683						

suggested that subjects who had spinal cord injuries were more likely than those who had cerebral palsy to agree that they would do the activity because they were unable to do the things they used to.

Regression analysis revealed an additional significant relationship between one of the facilitator items and an independent variable. Being less likely to become shy when with people known by the subject while doing the activity they ranked #1 and liking the activity were significantly related to the item ($T=2.63$, $p=.01$). A positive correlation ($r=.222$) suggested that subjects who agreed with the constraint tended to like the activity less.

Outdoor Recreation

Four significant linear regressions resulted for outdoor recreation activities; refer to Table 14 for details of correlations.

A significant linear regression ($F=8.52$, $p<.001$) based on the facilitator "I would prefer to remain independent in this activity" produced by variation in the three independent variables; 16% of the variation in the facilitator being accounted for by the three independent variables. Liking of the outdoor recreation activity ranked #1 was significantly related to preferring to be independent in the activity ($T=-3.75$, $p<.001$). The facilitator and liking the activity were negatively correlated ($r=-.327$) which indicated that the more subjects liked the activity the more likely they were to prefer to remain independent in the activity.

Disability type was also significantly related to preferring to be independent in the activity ($T=-2.82$, $p=.006$). The two variables were negatively correlated ($r=-.224$) indicating that subjects who had spinal cord injuries were more likely to prefer to remain independent than subjects who had cerebral palsy.

A significant linear regression ($F=11.64$, $p<.001$) was produced by the three independent variables, with 20.7% of the variation in the facilitator "I would become more confident in myself through participating in this activity", being accounted for by variation in the three independent variables. Liking the outdoor recreation activity ranked #1 was significantly related to being more confident through participating in the activity ($T=-0.47$, $p<.001$). The two variables were negatively correlated ($r=-.448$) indicating that the more subjects liked the activity the more likely they were to become confident through participation.

Table 14

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Facilitators Associated with Outdoor Recreation Activities Ranked #1

	Factor	b	Beta (β)	Partial	T	Sig. T
I would prefer to remain independent in this activity						
	Liking activity	-0.3085	-0.3430	-0.3083	-3.752	0.0003
	Previous involvement	0.0458	0.0236	0.0221	0.255	0.7988
	Disability type	-0.4491	-0.2264	-0.2370	-2.824	0.0055
$R^2 = .160$, F = 8.52, p= .000						
I would be less likely to become shy if I knew the people around me while I did this activity						
	Liking activity	0.0883	0.1026	0.0890	1.034	0.3030
	Previous involvement	-0.0275	-0.0148	-0.0128	-0.148	0.8828
	Disability type	-0.0821	-0.0432	-0.0429	-0.497	0.6200
$R^2 = .011$, F = 0.50, p= .683						
I would not be self-conscious if I was familiar with the activity						
	Liking activity	-0.0835	-0.1151	-0.0996	-1.171	0.2438
	Previous involvement	-3.28489E-04	-2.097E-04	-0.0002	-0.002	0.9983
	Disability type	-0.2046	-0.1278	-0.1262	-1.483	0.1405
$R^2 = .029$, F = 1.34, p= .265						
I would prefer this activity if it were not too competitive						
	Liking activity	0.1008	0.1202	0.1041	1.212	0.2277
	Previous involvement	-0.1306	-0.0722	-0.0621	-0.720	0.4726
	Disability type	-0.0013	-7.054E-04	-0.0007	-0.008	0.9935
$R^2 = .011$, F = 0.50, p= .684						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would become more confident in myself through participating in this activity						
	Liking activity	-0.3595	-0.4750	-0.4193	-5.346	0.000
	Previous involvement	0.0853	0.0522	0.0502	0.582	0.5617
	Disability type	-0.0933	-0.0559	-0.0619	0.718	0.4742
$R^2 = .207$, F = 11.64, p= .000						
I would continue with this activity because I enjoy it						
	Liking activity	-0.3492	-0.3913	-0.3679	-4.579	0.000
	Previous involvement	-0.3764	-0.1954	-0.1919	-2.263	0.252
	Disability type	-0.0500	-0.0254	-0.0293	-0.339	0.7352
$R^2 = .266$, F = 16.20, p= .000						
I would do this activity because I am unable to do the things I used to						
	Liking activity	0.0959	0.1203	0.1060	1.234	0.2194
	Previous involvement	-0.1557	-0.0904	-0.0791	-0.918	0.3602
	Disability type	-0.3416	-0.1941	-0.1925	-2.271	0.0247
$R^2 = .045$, F = 2.12, p= .101						
I would feel less anxious after doing this activity for the first time						
	Liking activity	-0.0053	-0.0076	-0.0066	-0.076	0.9392
	Previous involvement	0.0426	0.0286	0.0245	0.284	0.7770
	Disability type	-0.0227	-0.0149	-0.0147	-0.170	0.8651
$R^2 = .001$, F = 0.04, p= .987						
I would continue with this activity because it is similar to what I used to do when I was younger						
	Liking activity	-0.0213	-0.0234	-0.0205	-0.237	0.8130
	Previous involvement	-0.1270	-0.0648	-0.0560	-0.649	0.5173
	Disability type	-0.2597	-0.1296	-0.1283	-1.497	0.1367
$R^2 = .021$, F = 0.94, p= .426						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would choose to do this activity because I can manage it						
	Liking activity	-0.1067	-0.1319	-0.1237	-1.443	0.1514
	Previous involvement	-0.2095	-0.1265	-0.1115	-1.298	0.1964
	Disability type	0.1606	0.0949	0.0965	1.123	0.2636
$R^2 = .066$, $F = 3.15$, $p = .027$						
I would prefer to do this activity with people I know						
	Liking activity	0.0338	0.0452	0.0394	0.456	0.6488
	Previous involvement	-0.2116	-0.1312	-0.1125	-1.310	0.1923
	Disability type	-0.0299	-0.0181	-0.0180	-0.209	0.8349
$R^2 = .013$, $F = 0.59$, $p = .623$						

The three independent variables produced a significant linear relationship ($F=16.20$, $p<.001$) based on the facilitator "I continue with this activity because I enjoy it". Variation in the independent variables accounted for 26.6% of the variation in this facilitator. The partial correlation revealed that liking the activity had the greatest relationship with the facilitator ($T=-4.48$, $p<.001$). A negative correlation ($r=-.488$) suggested that subjects who liked the outdoor recreation activity they ranked #1 were more likely to continue with the activity because they enjoyed it.

A significant linear regression ($F=3.15$, $p=.03$) was produced by the three independent variables with 6.6% of the variation in the facilitator "I would choose to do this activity because I can manage it" being accounted for by variation in the independent variables. The partial correlations did not reveal any significant relationships between the dependent and independent variables. The independent variable having the greatest relationship with choosing to do the activity because it would be manageable was liking of activity ($T=-1.44$, $p=.15$).

Doing an activity because subjects were unable to do activities they used to was also significantly related to type of disability ($T=-2.27$, $p=.02$). A negative correlation ($r=-.183$) between the two variables indicated that subjects with spinal cord injuries were more likely to do the outdoor recreation activity they ranked #1 because they were unable to do the things they used to than were subjects who had cerebral palsy.

Sports Activities

Significant linear regressions produced in relation to sports activities are reported in this section; refer to Table 15 for details of correlations.

A significant linear relationship ($F=16.79$, $p<.001$) was found between the facilitator "I would continue with this activity because I enjoy it" and the three independent variables; 26.7% of the variation in the facilitator being attributable to the variation in the independent variables. The partial correlations suggested that liking the activity ($T=-3.65$, $p<.001$) and previous involvement in the activity ($T=-4.36$, $p<.001$) had the greatest relationship with continuing with the activity if subjects enjoyed it. Liking the activity and the facilitator were negatively correlated ($r=-.398$) indicating that subjects who liked the sports activity they ranked #1 were more likely to continue with the activity because they enjoyed it. Previous involvement in the activity and the facilitator were also negatively

Table 15

Multiple Regression Effects of Liking Activity, Previous Involvement, and Type of Disability on Facilitators Associated with Sports Activities Ranked #1.

	Factor	b	Beta (β)	Partial	T	Sig. T
I would prefer to remain independent in this activity						
	Liking activity	-0.2120	-0.1879	-0.1789	-2.136	0.0345
	Previous involvement	0.1382	0.0553	0.0536	0.631	0.5291
	Disability type	-0.2230	-0.1154	-0.1170	-1.384	0.1687
$R^2 = .049$, $F = 2.36$, $p = .074$						
I would be less likely to become shy if I knew the people around me while I did this activity						
	Liking activity	0.0672	0.0647	0.0611	0.719	0.4732
	Previous involvement	0.0306	0.0133	0.0126	0.148	0.8823
	Disability type	-0.0340	-0.0191	-0.0191	-0.224	0.8230
$R^2 = .005$, $F = 0.23$, $p = .873$						
I would not be self-conscious if I was familiar with this activity						
	Liking activity	0.0463	0..0491	0.0469	0.552	0.5819
	Previous involvement	-0.3414	-0.1632	-0.1551	-1.844	0.0673
	Disability type	0.1202	0.0743	0.0749	0.882	0.3791
$R^2 = .029$, $F = 1.40$, $p = .247$						
I would prefer this activity if it was not too competitive						
	Liking activity	0.2033	0.1834	0.1744	2.080	0.0393
	Previous involvement	0.1621	0.0660	0.0639	0.752	0.4535
	Disability type	-0.0190	-0.0100	-0.0102	-0.120	0.9048
$R^2 = .045$, $F = 2.19$, $p = .092$						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would become more confident in myself through participating in this activity						
	Liking activity	-0.1437	-0.1561	-0.1484	-1.762	0.0802
	Previous involvement	-0.1407	-0.0690	-0.0664	0.782	0.4357
	Disability type	0.0698	0.0442	0.0448	0.527	0.5992
$R^2 = .037$, $F = 1.74$, $p = .161$						
I continue with this activity because I enjoy it						
	Liking activity	-0.2680	-0.2819	-0.2967	-3.650	0.0004
	Previous involvement	-0.7058	-0.3350	-0.2476	-4.355	0.0000
	Disability type	-0.1508	-0.0925	-0.1070	-1.264	0.2082
$R^2 = .267$, $F = 16.79$, $p = .000$						
I continue with this activity because I am unable to do the things I used to						
	Liking activity	-0.0828	-0.0767	-0.0753	-0.887	0.3768
	Previous involvement	0.0960	0.0401	0.0396	0.466	0.6421
	Disability type	-0.4986	-0.2694	-0.2695	-3.287	0.0013
$R^2 = .081$, $F = 4.07$, $p = .008$						
I would feel less anxious after doing this activity for the first time						
	Liking activity	-0.0194	-0.0223	-0.0211	-0.248	0.8048
	Previous involvement	-0.0780	-0.0403	-0.0383	-0.450	0.6532
	Disability type	0.1097	0.0734	0.0731	0.861	0.3906
$R^2 = .008$, $F = 0.35$, $p = .788$						
I would continue with this activity because it is similar to what I used to do when I was younger						
	Liking activity	-0.1988	-0.2110	-0.2007	-2.407	0.0174
	Previous involvement	-0.0848	-0.0406	-0.0396	-0.465	0.6426
	Disability type	-0.0756	-0.0468	-0.0479	-0.564	0.5740
$R^2 = .056$, $F = 2.72$, $p = .047$						

Table continues

	Factor	b	Beta (β)	Partial	T	Sig. T
I would choose to do this activity because I can manage it						
	Liking activity	-0.1112	-0.1334	-0.1338	-1.587	0.1149
	Previous involvement	-0.5088	-0.2755	-0.2696	-3.289	0.0013
	Disability type	0.2011	0.1408	0.1487	1.767	0.0795
$R^2 = .131$, $F = 6.95$, $p = .0002$						
I would prefer to do this activity with people I know						
	Liking activity	0.1072	0.1123	0.1063	1.255	0.2115
	Previous involvement	0.0628	0.0297	0.0284	0.333	0.7395
	Disability type	0.0564	0.0345	0.0346	0.407	0.6847
$R^2 = .018$, $F = 0.82$, $p = .483$						

correlated (r=-.428) indicating that subjects who had no previous involvement in the activity they ranked #1 were less likely to continue because they enjoyed it.

A significant linear regression (F=4.07, p=.008) was produced by the three independent variables for the facilitator "I would do this activity because I am unable to do the things I used to", with 8.1% of the variation explained by liking an activity, previous involvement, and disability type. Disability type was significantly related to this facilitator (T=-0.27, p=.001), a negative correlation (r=-.275) indicating that subjects who had spinal cord injuries were more likely to agree with this constraint than those who had cerebral palsy.

The three independent variables produced a significant linear regression (F=2.72, p=.05) based on the facilitator "I would continue with this activity because it is similar to what I used to do", with 5.6% of the variation in the facilitator being explained by variation in the independent variables. The partial correlation suggested that liking the activity was of greatest influence to subjects continuing with the sports activity they ranked #1 (T=-2.41, p=.02). The facilitator and liking the activity were negatively correlated (r=-.228) indicating that subjects who did not like the activity did not continue with it because it was similar to what they used to do.

A significant linear regression (F=6.95, p<.001) was produced by the three independent variables; the independent variables accounted for 13.1% of the variation in the facilitator "I would choose to do this activity because I can manage it". Previous involvement in the sports activity ranked #1 had the greatest relationship to subjects choosing the activity because they could manage it (T=-3.29, p=.001). A negative correlation (r=-.314) between the facilitator and previous involvement in the activity indicated that subjects who were previously involved in the sports activity they ranked #1 were more likely to choose to do the activity because they could manage it than those who had no previous experience in the activity they ranked #1.

Additional significant relationships were found between facilitator items and independent variables. The relationship between liking an activity and preferring to be independent in a sports activity ranked #1 was significant (T=-2.14, p=.03). Liking an activity and preferring to be independent were negatively correlated (r=-.181) suggesting that subjects who liked the sports activity they ranked #1 were more likely to prefer to remain independent in the activity than those who did not like the activity. A significant relationship (T=2.08, p=.04) was found between liking an activity and preferring a sports

activity if it was not too competitive. A positive correlation (r=.204) indicated that the more subjects liked the activity they ranked #1 the more likely they were likely to disagree that they would prefer the activity if it was less competitive.

Analysis Summary

Significant linear regressions between facilitator statements (dependent variables) and liking the activity, previous involvement, and disability type (independent variables) over the three leisure activity domains used in this study were revealed by multiple linear regression analyses. Facilitator statements having significant relationships with independent variables were also found and reported in this section.

The facilitator statements exhibiting significant linear regressions or significant relationships between dependent and independent variables across the three leisure domains were "I continue with this activity because I enjoy it" and "I would do this activity because I am unable to do the things I used to". The greater number of significant linear regressions or relationships came from the sports activity domain. Chapter V contains a discussion of the meanings of the significant linear regressions.

Research Question Four

"In general, is the experience of constraints or facilitators in one activity domain related to another, regardless of activity type?"

Subjects were required to respond to identical constraint and facilitator statements in relation to passive leisure, outdoor recreation, and sports activities. Each statement was analysed to determine whether relationships existed across activity domains for both constraints and facilitators. A theoretical proposition of the current study was that the experience of a particular constraint or facilitator in one domain may be related to the experience of the same constraint or facilitator in another domain.

One-way ANOVAs identified constraint and facilitator statements which could be treated as homogeneous between activity domains as described previously (see research question one). Constraint and facilitator statements related to the activity subjects ranked #1 in one domain were correlated with the same statement in reference to another domain

using Pearson correlations. Statements having a significant correlation ($p \leq .05$) as well as those that were not statistically significant but were moderate correlations ($r \geq .200$) will be discussed, since the determination of significance in the Pearson correlation procedure is influenced by sample size (Cohen & Cohen, 1983).

Relationships Between Constraints Across-Domains

This section presents the correlations of constraints between three activity domains. Table 16 presents a summary of relationships across domains for constraints.

Eight of the nine constraint statements which could be used in the correlation procedure examining passive leisure and outdoor recreation activities were significantly correlated at the $p \leq .01$ level. The strongest relationship between the two activity domains was based on the constraint "I would avoid this activity if it compromised my values" ($r = .49$), indicating that subjects were just as likely to avoid the passive leisure activity they ranked #1 if it compromised their values as they were the outdoor recreation activity they ranked #1.

The remaining constraint items which produced significant correlations ($p \leq .01$ in all cases) between the passive leisure and outdoor recreation activity domains included, "I would be unlikely to do this activity if it were against my moral beliefs" ($r = .47$), "I would not like this activity if I thought I could be injured" ($r = .38$), "shyness would have been more likely to stop me from doing this activity when I was younger" ($r = .37$), "family related stress would restrict my participation in this activity" ($r = .36$), "my physical appearance could cause me to feel depressed while I did this activity" ($r = .35$), "I would become anxious if people were watching me do this activity" ($r = .31$), and "not being able to do certain things within this activity could cause me to feel depressed" ($r = .31$).

The constraint "this activity would not be appropriate if I could not physically manage it" was not related across the passive and outdoor domains ($r = .17$, $p > .05$). Not being able to physically manage an outdoor recreation activity did not mean a person would experience the same constraint in relation to a passive leisure activity.

Eight of the ten constraints statements included in correlation procedure examining passive leisure and sports activities displayed significant correlations, all at the $p \leq .01$ level. "I would avoid this activity if it compromised my values" was the constraint statement which produced the strongest relationship ($r = .52$), followed closely by "I would be unlikely to do this activity if it were against my moral beliefs" ($r = .51$). This result

Table 16

Correlations of Constraint Items Between Activity Domains

Statement	Passive and Outdoor	Passive and Sport	Outdoor and Sport
I would become anxious if people were watching me do this activity.	.31**	.15	.29**
I would feel uncomfortable if I thought people were judging me on my performance in this activity.	-	-	.43**
It would be important that I thought my physical appearance was okay while I did this activity.	-	-	.33**
Work related stress would restrict my participation in this activity.	-	-	.39**
This activity would not be appropriate for me if I could not physically manage it.	.17	.24*	.27*
My physical appearance could cause me to feel depressed while I did this activity.	.35**	.36**	-
Not being able to do certain things within this activity could cause me to feel depressed.	.31**	.37**	.44**
I would not like this activity if I thought I could be injured.	.38**	.47**	.32**
I would be unlikely to do this activity if it were against my moral beliefs.	.47**	.51**	.50**
I would avoid this activity if it compromised my values.	.49**	.52**	.59**
Shyness would have been more likely to stop me from doing this activity when I was younger.	.37**	.33**	.37**
Sometimes I couldn't physically cope with certain aspects of this activity.	-	.17	-
Family related stress would restrict my participation in this activity.	.36**	.36**	.57**

* = significant to $p \leq .01$

** = significant to $p \leq .001$

- = item not homogeneous across activities within domain

indicates that subjects would avoid the passive leisure and sports activities they ranked #1 if it compromised their values or went against their moral beliefs.

Other constraint statements which were significantly correlated (all were below p=.01) between the passive leisure and sports activity domains included "I would not like this activity if I thought I could be injured" (r=.47), "not being able to do certain things within this activity could cause me to feel depressed" (r=.37), "my physical appearance could cause me to become depressed while I did this activity" (r=.36), "family related stress would restrict my participation in this activity" (r=36), "shyness would have been more likely to stop me from doing this activity when I was younger" (r=.33), and "this activity would not be appropriate for me if I could not physically manage it" (r==.24).

Constraints of both anxiety (r=.15, p>.05) and coping (r=.17, p>.05) were not related across the passive leisure and sports activity domains. Becoming anxious when being watched by other people while doing a sports activity did not mean that a subject would experience the same constraint in relation to a passive leisure activity. A subject who felt that sometimes they could not cope with certain aspects of a sports activity did not necessarily experience the same difficulties with a passive leisure activity.

All eleven constraint statements used in the correlation procedure investigating outdoor recreation and sports activity domains were significantly correlated at the $p \leq .01$ level. "I would avoid this activity if it compromised my values" was the constraint which displayed the strongest relationship between outdoor recreation and sports activity domains (r=.59), indicating that subjects were as likely to avoid the outdoor recreation activity they ranked #1 if it compromised their values as they were the sports activity they ranked #1.

Additional correlations included , "family related stress would restrict my participation in this activity" (r=.57), "I would be unlikely to do this activity if it were against my moral beliefs" (r=.50), "not being able to do certain things within this activity could cause me to feel depressed" (r=.44), "I would feel uncomfortable if I thought people were judging me on my performance in this activity" (r=.43), "work related stress would restrict my participation in this activity" (r=.39), "shyness would have been more likely to stop me from doing this activity when I was younger" (r=.37), "it would be important that I thought my physical appearance was okay while I did this activity" (r=.33), "I would not like this activity if I thought I could be injured" (r=.32), and "I would become anxious if people were watching me do this activity" (r=.29).

Constraint Correlation Summary

Pearson correlation procedures were used to examine the relationships between constraint statements relating to the activity subjects ranked #1 in one domain with identical constraint statements in another domain. The constraint "I would avoid this activity if it compromised my values" displayed the strongest relationship across the three combinations of activity domains used in the analysis; all constraint statements were significantly correlated between the outdoor recreation and sports activity domains.

There was no relationship between the passive leisure and outdoor recreation activity domains based on not being able to physically manage an activity; and between passive leisure and sports activity domains based on anxiety and not being able to physically cope with certain aspects.

Relationships Between Facilitators Across Domains

This section presents the correlations of facilitators between three activity domains. Table 17 presents a summary of relationships across domains for facilitators.

Seven facilitator statements were correlated across the passive leisure and outdoor recreation domains; four produced significant correlations at the $p \leq .01$ level. The strongest relationship between the two domains was based on the facilitator "I would do this activity because I am unable to do the things I used to" ($r=.40$) indicating that subjects who did the passive leisure activity they ranked #1 because they were unable to do the things they used to were also likely to do the outdoor recreation activity for the same reason.

Other facilitator statements which were significantly correlated included "I would become more confident in myself through participating in this activity" ($r=.38$), "I would not be self-conscious if I was familiar with the activity" ($r=.37$), and "I would be less likely to become shy if I knew the people around me while I did this activity" ($r=.33$).

A moderate relationship, although not significant at the $p \leq .05$ level, existed between the passive leisure and outdoor recreation activity domain based on "I would choose this activity because I can manage it" ($r=.21$).

The statement "I would continue with this activity because it is similar to what I used to do when I was younger" was not related across domains ($r=.12$, $p>.05$). Continuing with an outdoor recreation activity because it was similar to what a subject used to do did not mean that they would continue with a passive leisure activity for the same reason. The

Table 17

Correlations of Facilitator Items Between Activity Domains

Statement	Passive and Outdoor	Passive and Sport	Outdoor and Sport
I would prefer to remain independent in this activity.	–	–	.35**
I would be less likely to become shy if I knew the people around me while I did this activity.	.33**	.20	.22*
I would not be self-conscious if I was familiar with the activity.	.37**	.31**	.30**
I would prefer this activity if it was not too competitive.	–	–	.38**
I would become more confident in myself through participating in this activity.	.38**	.11	.26*
I continue with this activity because I enjoy it.	.10	–	–
I would do this activity because I am unable to do the things I used to.	.40**	.47**	.45**
I would feel less anxious after doing this activity for the first time.	–	.38**	–
I would continue with this activity because it is similar to what I used to do when I was younger.	.12	.28**	.28*
I would choose to do this activity because I can manage it.	.21	.24*	.34**
I would prefer to do this activity with people I know.	–	–	.44**

* = significant to p≤.01
** = significant to p≤.001
– = item not homogeneous across activities within domain

facilitator "I continue with this activity because I enjoy it" was not related across the passive and outdoor domains ($r=.10$, $p>.05$). Continuing with a passive leisure activity because it was enjoyable did not mean that subjects would continue with an outdoor recreation activity because they enjoyed it.

Five of seven facilitator statements were significantly correlated at the $p\leq.01$ level for passive leisure and sports activities. The facilitator "I would do this activity because I am unable to do the things I used to" produced the strongest relationship between the two activity domains ($r=.47$), indicating that subjects who did a passive leisure activity because they were unable to do the things they used to were also likely to do a sports activity for the same reason.

The remaining facilitator statements which produced significant correlations between the passive leisure and sports activity domains were "I would feel less anxious after doing this activity for the first time" ($r=.38$), "I would not be self-conscious if I was familiar with the activity" ($r=.31$), "I would continue with this activity because it is similar to what I used to do when younger" ($r=.28$) and, "I would choose this activity because I can manage it" ($r=.24$).

Although not significant, a moderate relationship between the passive leisure and sports activity domains was found for the facilitator "I would be less likely to become shy if I knew the people around me while I did this activity" ($r=.20$).

There was no relationship between the passive leisure and sports activity domains in relation to the statement "I would become more confident in myself through participating in this activity"($r=.11$, $p>.05$), indicating that becoming more confident through participating in a sports activity did not mean that a subject became more confident through participating in a passive leisure activity.

All of the nine facilitator statements were significantly correlated between the outdoor recreation and sports domains ($p\leq.01$ in all instances). The strongest relationship between the outdoor recreation and sports activity domain was based on the facilitator "I would do this activity because I am unable to do the things I used to" ($r=.45$) indicating that the more subjects would do an outdoor recreation activity because they were unable to do the things they used to, the more they would do a sports activity for the same reason.

The remaining facilitator statements which produced significant correlations were "I would prefer to do this activity with people I know" ($r=.44$), "I would prefer this activity if it was not too competitive" ($r=.38$), "I would prefer to remain independent in this activity"

(r=.35), "I would choose this activity because I can manage it" (r=.34), "I would not be self-conscious if I was familiar with the activity" (r=.30), "I would continue with this activity because it is similar to what I used to do when I was younger" (r=.28), "I would become more confident in myself through participating in this activity" (r=.26), and "I would be less likely to become shy if I knew the people around me while I did this activity" (r=.22).

Facilitators Correlation Summary

Facilitator statements relating to the activity subjects ranked #1 in one leisure domain were correlated with identical statements in relation to other domains using the Pearson correlation procedure to determine whether relationships existed between domains. "I would do this activity because I am unable to do the things I used to" was the facilitator which displayed the strongest relationship across all three combinations of activity domains. The nine facilitator statements which were used in the analysis between outdoor recreation and sports activities were all significantly correlated indicating that facilitators to outdoor recreation activities were related to facilitators to sports activities.

Continuing with an activity because of enjoyment and it being similar to what subjects used to do, were the two facilitator statements that did not produce relationships between passive leisure and outdoor recreation activities. Passive leisure and sports activities were not related based on subjects considering that they would become more confident through participating in an activity.

Research Question Five

> "In general, is the experience of constraints and facilitators in people's most preferred activity related to the constraints and facilitators for their least preferred activity within each domain of leisure?"

Subjects were required to rank from 1 to 5, in order of preference, five activity types within the passive leisure, outdoor recreation, and sports activity domains. Responses to identical constraint and facilitator statements were sought in relation to the activities subjects had ranked #1 and #5. Statements were analysed to determine whether relationships existed between activities ranked #1 and #5 for both constraints and

facilitators. An intent of the present study was to determine whether the experience of constraints and facilitators for activities subjects ranked #1 (most preferred of list provided) were related to the constraints and facilitators experienced in relation to activities ranked #5 (least preferred of list provided).

Pearson correlations were used to examine relationships between constraint and facilitator statements for the activity subjects ranked #1 with the same statement in reference to the activity they ranked #5 within each activity domain. All statements were used in the analyses since the activity ranked #1 or #5 itself was not relevant and activity categories were not being treated as homogenous. Statements having a significant correlation ($p<.05$) as well as moderate correlations ($r\geq.20$) will be discussed, as the Pearson correlation procedure is influenced by sample size (Cohen & Cohen, 1983).

Determining Relationships Between Constraints to Activities Ranked #1 and #5

This section presents the results of correlations between constraints to activities ranked #1 and #5 within the passive leisure, outdoor recreation, and sports activity domains. Table 18 presents a summary of relationships.

Passive leisure.

Of the thirteen constraints related to passive leisure activities subjects ranked #1 and #5, twelve were significantly and positively correlated ($p<.01$). The strongest relationship between passive leisure activities ranked #1 and #5 was based on the constraint "I would avoid this activity if it compromised my values" ($r=.61$), indicating that subjects were just as likely to avoid the passive leisure activity they ranked #1 if it compromised their values as they were the activity they ranked #5.

The eleven constraint items that produced significant moderate correlations included "I would not like this activity if I thought I could be injured" ($r=.52$), "I would be unlikely to do this activity if it were against my moral beliefs" ($r=.52$), "This activity would not be appropriate for me if I could not physically manage it" ($r=.48$), "Family related stress would restrict my participation in this activity" ($r=.48$), "It would be important that I thought my physical appearance was okay while I did this activity" ($r=.44$), " My physical appearance could cause me to feel depressed while I did this activity" ($r=.41$), "Not being able to do certain things within this activity could cause me to feel depressed" ($r=.41$), "Sometimes I couldn't physically cope with certain aspects of this activity" ($r=.39$), "I

Table 18

Correlations of Constraint Items Between Activities Ranked #1 and #5

Statement	Passive #1 and Passive #5	Outdoor #1 and Outdoor #5	Sport #1 and Sport #5
I would become anxious if people were watching me do this activity.	.10	.22	.22*
I would feel uncomfortable if I thought people were judging me on my performance in this activity	.36**	.36**	.45**
It would be important that I thought my physical appearance was okay while I did this activity	.44**	.21	.32**
Work related stress would restrict my participation in this activity	.32**	.45**	.37**
This activity would not be appropriate for me if I could not physically manage it.	.48**	.36**	.13
My physical appearance could cause me to feel depressed while I did this activity.	.41**	.38**	.27*
Not being able to do certain things within this activity could cause me to feel depressed.	.41**	.42**	.44**
I would not like this activity if I thought I could be injured.	.52**	.45**	.34**
I would be unlikely to do this activity if it were against my moral beliefs.	.52**	.68**	.51**
I would avoid this activity if it compromised my values.	.61**	.71**	.46**
Shyness would have been more likely to stop me from doing this activity when I was younger.	.26*	.33**	.32**
Sometimes I couldn't physically cope with certain aspects of this activity.	.39**	.25*	-.08
Family related stress would restrict my participation in this activity.	.48**	.51**	.46**

* = significant to $p \leq .01$

** = significant to $p \leq .001$

would feel uncomfortable if I thought people were judging me on my performance in this activity" (r=.36), "Work related stress would restrict my participation in this activity" (r=.32), and "Shyness would have been more likely to stop me from doing this activity when I was younger" (r=.26).

The constraint "I would become anxious if people were watching me do this activity" was not correlated across passive leisure activities ranked #1 and #5 (r=.10, p>.05); becoming anxious if people were watching subjects do the passive leisure activity they ranked #1 did not mean that they would become anxious if people were watching them do the activity they ranked #5.

Outdoor recreation.

Eleven of the thirteen constraint statements were significantly correlated ($p \leq .01$). The constraint "I would avoid this activity if it compromised my values" produced the strongest relationship (r=.71), indicating that subjects would avoid the outdoor recreation activities they ranked #1 and #5 if those activities compromised their values.

The ten remaining constraints which produced significant correlations included "I would be unlikely to do this activity if it were against my moral beliefs" (r=.68), "family related stress would restrict my participation in this activity (r=.51), "work related stress would restrict my participation in this activity" (r=.45), "I would not like this activity if I thought I could be injured" (r=.45), "not being able to do certain things within this activity could cause me to feel depressed" (r=.42), "my physical appearance could cause me to feel depressed while I did this activity" (r=.38), "I would feel uncomfortable if I thought people were judging me on my performance in this activity" (r=.36), "this activity would not be appropriate for me if I could not physically manage it" (r=.36), "shyness would have been more likely to stop me from doing this activity when I was younger (r=.33), and "sometimes I couldn't physically cope with certain aspects of this activity" (r=.25).

Two moderate but not significant correlations between outdoor activities ranked #1 and #5 were found. The two constraints were "I would become anxious if people were watching me do this activity" (r=.22, p>.05) and "It would be important that I thought my physical appearance was okay while I did this activity" (r=.21, p>.05).

Sports activities.

The correlation procedure examining sports activities ranked #1 and #5 found eleven constraint statements producing significant correlations, all at the $p \leq .01$ level. The constraint "I would be unlikely to do this activity if it were against my moral beliefs" produced the strongest relationship (r=.51), which indicates that subjects who were likely to avoid the sports activity they ranked #1 if it compromised their values were also likely to avoid the activity they ranked #5 for the same reason.

The ten remaining statements which produced significant correlations included "I would avoid this activity if it compromised my values" (r=.46), "family related stress would restrict my participation in this activity" (r=.46), "I would feel uncomfortable if I thought people were judging me on my performance in this activity" (r=.45), "not being able to do certain things within this activity could cause me to feel depressed" (r=.44), "work related stress would restrict my participation in this activity" (r=.37), "I would not like this activity if I thought I could be injured" (r=.34), "it would be important that I thought my physical appearance was okay while I did this activity" (r=.32), "shyness would have been more likely to stop me from doing this activity when I was younger" (r=.32), "my physical appearance could cause me to feel depressed while I did this activity" (r=.27), and "I would become anxious if people were watching me do this activity" (r=.22).

There was no relationship between sports activities ranked #1 and #5 for the constraint "this activity would not be appropriate for me if I could not physically manage it", indicating that because subjects may have considered the sports activity ranked #5 not to be appropriate for them if they could not physically manage it did not mean that they would experience the same constraint in regard to sports activities ranked #1. "Sometimes I couldn't physically cope with certain aspects of this activity" was the other constraint which did not produce a significant correlation. Not being able to cope with certain aspects of the sports activity ranked #5 did not mean that subjects experienced this constraint in relation to the activity they ranked #1.

Summary.

Pearson correlations were used to examine relationships between constraints to activities subjects had ranked #1 and #5 within the passive leisure, outdoor recreation, and sports activity domains. The constraint "I would avoid this activity if it compromised my

values" produced the strongest relationship between activities ranked #1 and #5 within the passive leisure and outdoor recreation domains. Of the three activity domains, the outdoor recreation activity domain displayed the most relationships between activities ranked #1 and #5 with eleven of the thirteen constraint statements being significantly correlated.

Anxiety resulting from people watching was the constraint that did not produce a relationship across passive leisure activities ranked #1 and #5. An activity not being appropriate if it was physically unmanageable and sometimes not being able to physically cope with aspects of an activity were the two facilitators which did not produce relationships across sports activities ranked #1 and #5.

Determining Relationships Between Facilitators to Activities Ranked #1 and #5

This section presents the results of correlations between facilitators to activities ranked #1 and #5 within the passive leisure, outdoor recreation, and sports activity domains. Table 19 presents a summary of relationships.

Passive leisure.

Eight of the eleven correlations between activities ranked #1 and #5 produced significant correlations ($p \leq .01$). The strongest relationship was based on the facilitator "I would do this activity because I am unable to do the things I used to" ($r=.57$), indicating that subjects were just as likely to do the passive leisure activity they ranked #1 because they were unable to do the things they used to as they were the activity they ranked #5.

Other facilitators which produced significant correlations included "I would prefer this activity if it was not too competitive" ($r=.48$), "I would feel less anxious after doing this activity for the first time" ($r=.42$), "I would not be self-conscious if I was familiar with the activity" ($r=.40$), " I would be less likely to become shy if I knew the people around me while I did this activity" ($r=.38$), "I would become more confident in myself through participating in this activity" ($r=.37$), "I would prefer to do this activity with people I know" ($r=.28$), and "I would prefer to remain independent in this activity" ($r=.26$).

There was no relationship between passive leisure activities ranked #1 and #5 for the constraint "I continue with this activity because I enjoy it" ($r=-.01$, $p>.05$). Continuing with the passive leisure activity subjects ranked #1 because they enjoyed it did not mean that they would continue with the activity they ranked #5 because they enjoyed it. There

Table 19

Correlations of Facilitator Items Between Activities Ranked #1 and #5

Statement	Passive #1 and Passive #5	Outdoor #1 and Outdoor #5	Sport #1 and Sport #5
I would prefer to remain independent in this activity.	.26*	.47**	.15
I would be less likely to become shy if I knew the people around me while I did this activity.	.38**	.27	.49**
I would not be self-conscious if I was familiar with the activity.	.40**	.07	.23
I would prefer this activity if it was not too competitive.	.48**	.46**	.29**
I would become more confident in myself through participating in this activity.	.37**	.22	.17
I continue with this activity because I enjoy it.	-.01	.11	-.14
I would do this activity because I am unable to do the things I used to.	.57**	.31**	.28**
I would feel less anxious after doing this activity for the first time.	.42**	.42**	.22*
I would continue with this activity because it is similar to what I used to do when I was younger.	.11	.21	.19
I would choose to do this activity because I can manage it.	.19	.28*	<.01
I would prefer to do this activity with people I know.	.28**	.41**	<.01

* = significant to p≤.01
** = significant to p≤.001

was also no relationship for the statement "I would continue with this activity because it is similar to what I used to do when I was younger"; continuing with the passive leisure activity ranked #1 because it was similar to what the subject used to do when they were younger did not mean that the reason applied to the activity they ranked #5. " I would choose to do this activity because I can manage it" was the final facilitator which did not produce a relationship between passive leisure activities ranked #1 and #5; subjects may have chosen to do the passive leisure activity they ranked #1 because they could manage it, but that did not mean that they would choose to do the activity they ranked #5 for the same reason.

Outdoor recreation.

Six facilitator statements were significantly correlated between outdoor recreation activities ranked #1 and #5; all were $p \leq .01$. "I would prefer to remain independent in this activity" was the facilitator which produced the strongest relationship ($r=.47$), indicating that subjects were just as likely to prefer remaining independent when doing the outdoor recreation activity they ranked #5 as they were when doing the activity they ranked #1.

Other facilitator statements which produced significant correlations included "I would prefer this activity if it was not too competitive" ($r=.46$), "I would feel less anxious after doing this activity for the first time" ($r=.42$), "I would prefer to do this activity with people I know" ($r=.41$), "I would do this activity because I am unable to do the things I used to" ($r=.31$), and "I would choose to do this activity because I can manage it" ($r=.28$).

Moderate but non-significant correlations existed between outdoor activities ranked #1 and #5 based on the facilitators "I would be less likely to become shy if I knew the people around me while I did this activity" ($r=.27$, $p>.05$), "I would become more confident in myself through participating in this activity" ($r=.22$, $p>.05$) and, "I would continue with this activity because it is similar to what I used to do when I was younger" ($r=.21$, $p>.05$).

The facilitators " I would not be self-conscious if I was familiar with the activity" and "I would continue with this activity because I enjoy it" did not produce significant relationships between outdoor activities ranked #1 and #5. Not being self-conscious if subjects were familiar with the outdoor activity they ranked #1 did not mean that they would not be self-conscious if they were familiar with the activity they ranked #5 ($r=.07$, $p>.05$). Continuing with the outdoor recreation activity ranked #1 because it was enjoyable

did not mean that subjects would continue with the activity they ranked #5 because they enjoyed it (r=.11, p>.05).

Sports activities.

The correlation procedure revealed that four statements produced significant correlations between sports activities ranked #1 and #5, all at the p≤.01 level. The strongest relationship was based on the facilitator "I would be less likely to become shy if I knew the people around me while I did this activity" (r=.49), indicating that subjects would be likely to experience this facilitator in relation to the sports activities they ranked #1 and #5.

The facilitators "I would prefer this activity if it was not too competitive" (r=.29), "I would do this activity because I am unable to do the things I used to" (r=.28) and, "I would feel less anxious after doing this activity for the first time" (r=.22) were the remaining facilitators which produced significant correlations.

A moderate correlation existed between sports activities ranked #1 and #5 based on the facilitator "I would not be self-conscious if I was familiar with the activity" (r=.23, p>.05) but this relationship was not significant.

There were six facilitator statements that were not related across sports activities ranked #1 and #5 (all were p>.05). These facilitators were "I would prefer to remain independent in this activity" (r=.15), "I would become more confident in myself through participating in this activity" (r=.17), " I continue with this activity because I enjoy it" (r=-.14), "I would continue with this activity because it is similar to what I used to do when I was younger" (r=.19), " I would choose to do this activity because I can manage it" (r<.01), and "I would prefer to do this activity with people I know" (r<.01). Preferring to remain independent in the sports activity ranked #1 did not mean that this constraint applied to the activity ranked #5. Becoming more confident through participating in the sports activity ranked #1 did not mean that this would be experienced through participating in the activity ranked #5. Subjects who continued with the sports activity they ranked #1 because they enjoyed it, would not necessarily continue with the activity they ranked #5 for the same reason. Continuing with the sports activity ranked #1 because it was similar to the things a subject used to do when younger did not mean that the person felt this way about the activity they ranked #5. Choosing the sports activity ranked #1 because it was manageable did not mean that subjects would choose to do the activity ranked #5 for the same reasons.

Preferring to do the sports activity ranked #1 with people subjects knew did not mean the same applied to activity ranked #5.

Summary.

Determining relationships between facilitator statements for activities subjects ranked #1 and #5 were carried out using the Pearson correlation procedure. Analyses indicated that out of eleven pairs of correlations, the passive leisure activity domain exhibited eight significant correlations while the sports activity domain only had four significant correlations. The facilitator statements producing the strongest relationship between activities ranked #1 and #5 were different for each domain.

Continuing because of enjoyment, continuing because activity was similar to what subjects used to do, and choosing an activity because it is manageable were the facilitator statements that did not produce relationships between passive leisure activities ranked #1 and #5. Not being self-conscious if familiar with the activity and continuing with an activity because it is enjoyable were the two statements that did not produce relationships between outdoor recreation activities ranked #1 and #5. The sports activity domain indicated the greatest number of facilitators that did not produce relationships between activities ranked #1 and #5. Facilitators not producing relationships included preferring to remain independent, becoming more confident through participation, continuing because of enjoyment, continuing with an activity because it is similar to what subjects used to do, choosing an activity because it is manageable, and preferring to do an activity with people subjects knew.

Chapter Summary

The results of statistical analyses conducted for the current study have been presented in this chapter. An outline of the procedures used and the results obtained was provided with each section of analyses to assist in the understanding of each test. The findings are discussed in terms of each of the research questions in the following chapter.

Chapter V: Discussion

The discussion of results addresses the five research questions of the present study. Possible explanations for differences between activity types in relation to each constraint and facilitator within the three domains of leisure are given. The association of liking an activity, previous involvement, and type of disability with level of constraint and facilitator are discussed followed by explanations as to whether the experience of constraints and facilitators in one activity domain related to another and whether the experience of constraints and facilitators in people's most preferred activity related to constraints and facilitators for their least preferred activity. This chapter concludes with a discussion of methodological issues relating to the present study.

Constraints and Facilitators Across Activities and Within Domains

The first question that this study addressed was whether type of activity was associated with level of constraint or facilitator within each domain of leisure. This section discusses the significant differences existing between the activity types in relation to each of the constraint and facilitator items within the three domains of leisure used in this study. An explanation of those constraint and facilitator items which displayed significant differences and may not be treated as homogeneous within different domains of leisure will be given. Due to the low number of subjects (N=147) in this study, it is acknowledged that the interpretability of ANOVAs is limited because of small cell sizes.

Constraints Associated with Activities Ranked #1 and #5

One-way analysis of variance and TukeyB follow-up tests revealed significant differences between constraint scores and the activities subjects most and least preferred (ranked #1 and #5) within leisure domains. Constraint statements which produced significant differences between activities ranked #1 and #5 are discussed in this section.

Subjects who ranked playing passive games #1 were significantly more likely to report that they would feel uncomfortable if they thought people were judging them on their performance than were subjects who ranked reading, going to the movies, watching television, or sports spectating #1, whereas the constraint was not a concern for those who ranked playing passive games #5. Passive games such as chess, draughts and cards were the only passive leisure activities included in the current study that provided opportunity for competing with others. Subjects may have felt uncomfortable if they thought they would be judged on their performance, especially if they may have experienced difficulties with the activity. A lack of concern for the judgements of others by subjects who did not have a strong interest in playing passive games suggested that they were not concerned by others judgements because they were comfortable with being judged on their performance or that the activity may not have been that important to them.

A negative view of one's body-image and appearance may constrain participation in some leisure activities (Frederick & Shaw, 1995). A concern that one's physical appearance was okay while doing an activity was significantly more likely to be reported by subjects who ranked sports spectating #1 than those who ranked reading or watching television #1, while subjects who ranked reading #1 were less likely than those who ranked going to the movies #1 to report the constraint. Watching sports such as rugby, soccer and netball usually occur at venues where there are other people. A person with a disability may be very conscious of their body-image and appearance especially if they experience uncontrolled movements or speech difficulties which may cause them to feel uncomfortable and embarrassed in a social setting. Concerns for physical appearance may have been expressed in relation to sports spectating as this activity may have required subjects to mix with other people, whereas reading or watching television may have been solitary activities, taking away the concern for one's appearance. People with disabilities who do not think their appearance is okay may withdraw from social activities if they feel devalued or stigmatised (Skelt, 1994). Going to the movies also involves mixing with other people which may have raised subjects' concerns for appearance whereas those who read may have done so in places where their physical appearance may not have been so important.

Subjects who ranked tennis, swimming and running #1 were significantly more likely to report a concern for their physical appearance than those who ranked playing pool/snooker/billiards #1. Tennis, swimming and running usually occur in public settings where other people may be watching. Subjects may have wished to consider that their physical appearance was okay when doing these activities as this could have contributed to a positive self-image which may have given them the confidence to participate in front of other people. Subjects who ranked playing pool/snooker/billiards #1 may have done so in a situation where their physical appearance was not an issue either because there were few people around them or they would have been with people they knew. Subjects who were confident in themselves may have received positive evaluations from others (Elliot & Frank, 1990; Elliot et al., 1991) suggesting that subjects who played pool/snooker/billiards may not have had a concern for their appearance, even if among strangers.

Work related stress was significantly more likely to be reported as a restriction by subjects who ranked playing passive games #1 than those who ranked going to the movies, sports spectating, or watching television #1. Stress related to work may best be overcome for people with disabilities by being able to relax after work. Going to the movies, sports spectating and watching television may not have required the same levels of energy input and concentration by subjects as playing passive games would have and may have offered relief from stress.

Some people with disabilities may experience difficulties with aspects of leisure activities, especially activities that are physically demanding. A significant difference between activity types within the outdoor recreation domain was found based on being unable to physically cope with certain aspects of an activity. Subjects who ranked rock climbing and horse riding #1 were more likely to report that they would be physically unable to cope with aspects of these activities than those who ranked tramping, fishing or skiing #1. Ranking an outdoor recreation activity #1 did not necessarily reflect that subjects participated in the activity but that they had an interest in the activity. If the challenges of an activity are in balance with the skills of the participant, activities may be more enjoyable (Csikszentmihalyi, 1975). Subjects who ranked tramping, fishing or skiing #1 may have considered they would be able to physically cope with aspects of these activities, whereas subjects who ranked rock climbing and horse riding #1 may have found aspects such as

coordinating hand and foot movements and maintaining balance difficult. Similarly, the physical demands of activities may have been associated with subjects evaluations of the appropriateness of activities. Subjects who ranked rock climbing #5 were more likely to report that this activity would not be appropriate if they could not physically manage it than those who ranked tramping #5. Rock climbing may have involved more technical skills than tramping, such as gripping on to a rock or holding a rope, tasks which may have been difficult for subjects, making the activity inappropriate. Subjects may have ranked rock climbing #5 if they thought that they did not have the skills required.

Individuals may be less likely to become interested in activities they perceive as being too challenging or dangerous. Not liking an activity if there was a risk of becoming injured was less of a concern for subjects who ranked rock climbing #5 than it was for those who ranked horse riding #5. Subjects who ranked horse riding #5 may have been more familiar with this activity and were able to recognise the associated dangers. Subjects may have had greater access to horse riding through organisations such as Riding for the Disabled whereas rock climbing may not have been as accessible.

Facilitators Associated with Activities Ranked #1 and #5

One-way analysis of variance and TukeyB follow-up tests revealed significant differences between activities subjects ranked #1 and #5 based on facilitator scores. Facilitator statements producing significant differences between activities are discussed in this section.

Henderson et al. (1995) suggested that people with disabilities who required assistance from others often struggled to maintain a balance between independence and dependence. Preferring to remain independent was more important for subjects who ranked reading #1 than for those who ranked going to the movies, sports spectating and watching television #1. Many people with disabilities may not have many opportunities to be fully independent as they may require assistance with daily tasks such as dressing, toileting, and mobility (Lyons, 1991). Subjects who ranked reading #1 may have had few opportunities to realise independence and reading may have provided an opportunity for independence whereas other passive leisure activities may not. Subjects who ranked going to the movies, sports spectating, or

watching television #1 may not have required assistance to do these activities or been more tolerant of assistance if it enabled them to have an interest for and participate in these activities as suggested by Lyons (1991).

A person with a disability may feel more comfortable being with someone they know when taking part in a social event, such as those that may occur in the context of leisure. Subjects who ranked going to the movies, playing passive games, and sports spectating #1 were more likely to prefer doing these activities with people they knew than those who ranked reading or watching television #1. Reading and watching television may have been activities that subjects may have been able to do by themselves. People with disabilities may require assistance with activities such as going to the movies or sports spectating and having a friend with them may ease their anxiety and concerns, enabling them to form preferences for such activities.

Subjects who ranked going to the movies #5 were more likely to disagree that they did this activity because they were unable to do the things they used to than were those who ranked reading or playing passive games #5. This result suggested that subjects may have gone to the movies regardless of their abilities. Reading and playing passive games may be activities which are more likely to be substituted for other activities, especially if people opt to withdraw as suggested by Dew et al. (1983), because they may be unsure of others reactions or not want to run the risk of embarrassment.

Anxiety caused by the perceptions of an activity prior to participation may diminish once an individual has attempted the activity for the first time. This was not so for subjects who ranked fishing #1 as they were more likely to disagree that they would feel less anxious after doing this activity for the first time compared to those who ranked tramping, horse riding, and skiing #1. Anxiety may result if an individual perceives the challenges to be too great (Backman & Crompton, 1989). Subjects may have considered that having participated in tramping, horse riding, and skiing for the first time, they were able overcome any anxiety whereas anxiety resulting from fishing would not diminish after the first time, suggesting that fishing may not stimulate anxiety the way that other outdoor recreation activities did.

Results suggested that subjects who ranked tramping and rock climbing #5 disagreed that they continued with these activities because they enjoyed them whereas subjects who least preferred horse riding, fishing, and skiing were more

likely to continue with these activities because they enjoyed them. Elements of tramping and rock climbing may make these activities less appealing to people with disabilities. Many people may not have an interest for tramping or rock climbing because they may find or perceive these activities as being too difficult. Horse riding, fishing, and skiing, although least preferred, may be more manageable and not so daunting to people with disabilities.

Sporting activities usually involve an element of competition (Heywood et al., 1995). Subjects who ranked sports spectating #1 were significantly more likely to disagree that they would prefer to do this activity if it was not too competitive than those who ranked going to the movies, playing passive games and watching television #1. This result suggested that subjects may have interpreted the facilitator as being related to the sport they would have been watching rather than their actions. With this in mind, subjects would have preferred the sport they were watching to be competitive.

Although all subjects agreed that they would continue with the sports activity they most preferred because they enjoyed it, those who ranked playing pool/snooker/billiards #1 were significantly more likely to continue because they enjoyed the activity than those who ranked tennis, swimming and running #1. Subjects who most preferred pool/snooker/billiards may have found that these activities were more enjoyable because they were more accessible and manageable than other sports activities included in this study.

Results indicate that the personal resources of subjects which may have promoted their interests in passive leisure activities depended on the actual activity. Developing interests for outdoor recreation and sports activities may be possible without focussing on specific activity types as the results suggest that facilitators apply to activities within domains regardless of type. Recreation programmers who provide outdoor recreation and sports activities for people with disabilities may be able to build on individuals personal resources in order to assist them in forming a preference for a variety of activities without concern for the particular outdoor recreation and sports activities whereas attention may need to be paid to the activity type for passive leisure activities.

Liking of Activity, Previous Involvement, Type of Disability and the Reporting of Constraints

Liking an activity, previous involvement in an activity, and type of disability may be related to the experience of intrapersonal constraints and facilitators within leisure activity domains. Individuals who have developed an interest for an activity or who had previous involvement in activities may be more likely to recognise constraints and facilitators to leisure activities than those who had not had previous experience or an interest in an activity (Shaw et al., 1991). The literature suggests that the nature of cerebral palsy and spinal cord injuries may mean that people experience different intrapersonal constraints and facilitators to leisure activities.

The Role of Liking an Activity

Positive correlations between liking the passive leisure and sports activities subjects most preferred and becoming anxious if people were watching indicated that the more subjects liked these activities the less likely they were to become anxious if other people were watching (due to reverse coding). If a person likes an activity their levels of confidence and self-esteem may rise to an extent where they do not become anxious if other people are watching them. Passive leisure activities such as watching television and reading may occur in relative privacy, with the chances of becoming anxious due to people watching being diminished. Sports activities by nature usually mean that people, even co-participants, will be watching. Liking a sports activity may have meant that individuals had accepted that people may have been watching them and did not let anxiety stop them forming a preference for this type of activity.

Frederick & Shaw (1995) suggested body-image may affect enjoyment of some leisure activities. Subjects who liked the outdoor recreation activity they ranked #1 were less likely to become depressed due to their physical appearance than those who did not like the activity as much. Concerns for physical appearance may diminish in relation to liking an outdoor recreation activity. Subjects who liked the outdoor recreation activity they ranked #1 may have been able to focus on the actual activity and been less concerned about their appearance. This result may also suggest that subjects who did not like the outdoor recreation activity may not have

done so due to concerns about their physical appearance. These subjects may have been less confident and assertive, and may not have received positive evaluations from others as suggested by Elliot & Frank (1990) and Elliot et al. (1991). People who have a positive body-image may be less likely to avoid doing an activity because of their appearance.

People with disabilities may become shy if they are particularly aware of their body image or when in the company of strangers. The more subjects liked the passive activity they ranked #1, the less likely shyness was reported to have stopped them from participating in that activity when they were younger. Participating in an activity from a young age appears to be important to development of confidence in passive leisure activities and this may have positive consequences for self-esteem as suggested by Rosenberg (1989).

The Role of Previous Involvement

People with disabilities may be deterred from becoming interested in an activity if they perceive that they do not have the ability to perform the activity (Kennedy et al., 1991). Subjects who had no previous involvement in the passive leisure activities they ranked #1 were more likely to report that being unable to do certain things within an activity could cause them to become depressed and that sometimes they were physically unable to cope with certain aspects of an activity. Many people with disabilities may perceive that they do not have the skills required to cope with aspects of an activity, especially if they have not been involved in the activity before. These results suggested that subjects who did not participate in the passive leisure activity they ranked #1 may not have done so because they thought that they could become depressed as a result of inability to do certain things, for example, holding a collection of playing cards or getting into a movie theatre unaided. Subjects may have experienced worry and anxiety if they perceived an activity to be too challenging (Csikszentmihalyi, 1975) but, allowing oneself the opportunity to try an activity, individuals may realise that they may be able to do things they had not thought possible.

Subjects who had no previous involvement in the outdoor recreation activity they ranked #1 were restricted by family stresses more than those who had. Constraints are often realised once participation has taken place (Kay & Jackson,

1991; Shaw et al., 1991). Subjects who had not participated in the activity may have perceived family related stresses to be an issue as they may have experienced family related stresses in others aspects of their lives. Many outdoor recreation activities may require travelling away from one's home, a prospect which may be daunting in the face of caring for children or participating in activities with a partner.

The Role of Type of Disability

People who acquire their disabilities may have more concern for body-image and changed abilities than those with congenital disabilities. Subjects who had spinal cord injuries were more likely to report that they would become anxious if people were watching them do the outdoor recreation and sports activities they ranked #1 than were subjects who had cerebral palsy. These results suggested that the nature of sports activities may have caused subjects with spinal cord injuries to become anxious if being watched by others. Uncontrollable movements, the use of adapted equipment, and the need for assistance from others may have added to these subjects' anxiety levels. Subjects with spinal cord injuries may have become anxious because they found that they could no longer do the things they once did. Having to rely on the use of a wheelchair or other assistive devices and the need for assistance may have added to anxiety levels due to an uncertainty of how an activity would be managed. Transferring from a wheelchair to a kayak or holding a bowling ball may have been examples of situations when subjects with spinal cord injuries became anxious. A person with a spinal cord injury in Bedini & Henderson's (1994) study gave swimming as an example of an activity where being watched by others due to their obvious differences caused them to become anxious. Subjects with cerebral palsy may not become as anxious in this situation as they may have been more tolerant of their disability and be more accepting of assistance from other people or devices in order to become involved in an activity.

Relationships between type of disability, moral beliefs and personal values suggested that subjects who had spinal cord injuries were more likely than subjects who had cerebral palsy to avoid the passive leisure activities they ranked #1 based on moral beliefs and personal values. In reality, the likelihood of subjects with spinal cord injuries being more likely to avoid passive leisure activities based on moral beliefs and personal values was low. People generally form preferences for activities

which are in keeping with their morals and values. The likelihood of subjects to have ranked activities #1 if they were against their morals or values was also low.

Liking of Activity, Previous Involvement, Type of Disability and the Reporting of Facilitators

The Role of Liking an Activity

Subjects who liked the passive leisure, outdoor recreation, and sports activities they ranked #1 continued with these activities because they enjoyed them. People with disabilities may like and find activities enjoyable if they are manageable, if independence can be realised, and if they have the support of friends and family. Going to the movies, horse riding, and playing pool may have been examples of activities subjects enjoyed because they could manage them independently. People may be less likely to form preferences for activities they do not enjoy; results of this study suggested that enjoyment was associated with activities subjects ranked #1.

Negative implications of requiring assistance may include loss of personal control and a perceived display of weakness on the part of the recipient (Hansson et al., 1984). A preference for remaining independent while doing the outdoor recreation and sports activities ranked #1 was expressed by subjects who liked these activities. Liking an activity may have been associated with subjects being able to maintain independence (Becker & Schaller, 1995). Having to rely on other people for assistance may make an activity less enjoyable. Remaining independent during an activity may increase self-confidence and self-esteem by giving the participant a sense of being in control of their actions and destiny. Skiing or swimming may require the use of equipment, but gives the participant a feeling of independence. If a person has the impression or knowledge that they will be able to remain as independent as possible then they may be more inclined to become interested in an outdoor recreation or sports activity.

Subjects who liked the passive leisure activity they ranked #1 were less likely to become shy if they knew the people around them while they did the activity. Companionship of people subjects knew may have contributed to them liking an activity. Going to the movies and sports spectating are examples of passive leisure activities that may have involved friends. Shyness of a person with a disability may

be caused by not having someone around who knows them and who can assist them if needed. Having a friend nearby may have given subjects the confidence to become interested in activities they may not have done by themselves.

One of the hallmarks of sports activities is that they are competitive (Heywood et al., 1995; Hess et al., 1988). The more subjects liked the sports activity they ranked #1, the more likely they were to prefer the activity if it was competitive. Subjects who liked the sports activity they ranked #1 may have done so because they enjoyed the competitive nature of the sport. People who do not have disabilities may have concerns about making sporting activities less competitive than usual so people with disabilities can manage them when it is the element of competition which attracts people with disabilities in the first place.

Confidence levels may increase once a person has attempted and discovered that they could manage an activity, that they like it, and they are satisfied with their level of involvement. The confidence of an individual may be boosted if they like the activity they are participating in, whereas confidence levels may decline if the activity is not liked, due to it being difficult or detrimental to an individuals welfare (Backman & Crompton, 1989). The more subjects liked the outdoor recreation activity they ranked #1, the more likely they were to report that they would become more confident in themselves through participation. Knowing that involvement in an activity may have boosted the confidence of subjects could have encouraged them to have developed interests in activities such as skiing and horse riding. Being able to ski down a slope without falling or riding a horse unaided may have been examples of activities which boosted the confidence of subjects.

Sports activities may offer a sense of camaraderie and social contact (Kelly, 1990). Continuing with sports activities similar to those participated in previously may assist in maintaining contacts established. People may either continue with, or take up an activity if it is similar to what they used to do. People with spinal cord injuries may, for example, have an interest in playing wheelchair basketball if they previously played standard league basketball. People's interest levels for a given activity may also determine whether they continue with an activity because it is similar to what they used to do. Subjects who did not like the sports activity they ranked #1 were more likely not to continue with the activity because it was similar to what they used to do, which suggested that these subjects may have had preferences

for sports activities not included in this study, did not have a preference for doing the sports activity they used to, or did not like sports activities in general.

Enjoyment of an activity, as already suggested, may depend on how manageable it is. Subjects who liked the outdoor recreation activity they ranked #1 were more likely to choose to do the activity because they could manage it. Being able to manage aspects of an activity may be an important determining factor in whether or not people with disabilities like an activity. Frustration, anger, and disappointment may become evident if an activity is not manageable and could lead to a dislike for that activity (Csikszentmihalyi, 1975). In order for subjects to like an outdoor recreation activity they may have needed to perceive or had the knowledge that they were able to manage the activity.

The Role of Previous Involvement

Continuing with the sports ranked #1 because the activity was enjoyable was less likely to be reported by subjects who had no previous involvement in the activity. Non-participation may have been a result of subjects not finding an activity enjoyable. Reasons for not finding a sports activity enjoyable may have included not having fun, the activity not being competitive enough, not being able to manage the activity, or simply not knowing whether they would enjoy the activity since they had no previous involvement. If an individual does not consider that they will find an activity enjoyable, they may be less likely to form a preference for the activity.

Having no previous involvement in an activity may stem from an individual perceiving or knowing that they will not be able to manage to do the activity or aspects of it. Choosing to do the sports activity ranked #1 because it was manageable was less likely to be reported by subjects who did not participate in the activity. This result indicated that subjects who had no previous involvement in the sports activity they ranked #1 may have thought they were not able to manage the activity even though the activity was their most preferred. Subjects may have been unaware that they had the resources which would have enabled them to manage the activity.

The Role of Type of Disability

People with spinal cord injuries may develop interests for leisure activities different to those they participated in before acquiring their disability (Lee et al.,

1996). Subjects with spinal cord injuries in the current study were more likely to report that they would do the passive leisure, outdoor recreation, and sports activities they ranked #1 because they were unable to do the things they used to compared to subjects with cerebral palsy. Spinal cord injuries result in a loss of function making it difficult if not impossible to do things that a person once did (Frank et al., 1987). Subjects with spinal cord injuries may have chosen to become involved in passive leisure activities as opposed to more active activities as suggested by Dew et al. (1983), may have taken up skiing on a mono ski or in a sled where once they may have gone cross country skiing, and may have taken up playing bowls or pool instead of netball or rugby. Individuals with cerebral palsy usually do not have to face such readjustment as they may develop leisure interests from a young age in accordance with their abilities.

Subjects who had spinal cord injuries were more likely to prefer to remain independent when doing the outdoor recreation activity they ranked #1 than were those with cerebral palsy. Individuals with spinal cord injuries may have been used to being independent before acquiring their disability and may have wished to continue to be despite their changed abilities. An alternative interpretation could be that subjects with cerebral palsy may have been more tolerant of having assistance in relation to an outdoor recreation activity if it meant the difference between participation and non-participation.

The Relationship of Constraints and of Facilitators Across Activity Domains

Pearson correlations were used to determine whether relationships existed across activity domains in relation to constraint and facilitator statements. Results indicated that most constraint and facilitator statements were related across activity domains. Personal values and moral beliefs were the constraints that produced the strongest relationships for all three combinations of activity domain comparisons. These constraint items fielded low scores which indicated that moral beliefs and personal values were generally not important concerns for subjects, this appeared to be true in relation to all activities. A lack of concern for moral beliefs and personal

values suggested that these issues were not important factors in relation to activities ranked #1.

Constraints Not Related Across Domains

Concerns about the manageability of an activity did not produce a relationship between passive leisure and outdoor recreation activities which suggested that this issue was not the same for passive leisure and outdoor recreation activities. Outdoor recreation activities such as skiing and rock climbing may be more difficult and require the use of motor skills which subjects may have found difficult, whereas passive leisure activities like reading and watching television may not have been as difficult.

Becoming anxious if people were watching subjects while they did an activity was unrelated across passive leisure and sports activity domains. The relevance of being observed may have varied across these domains. Many passive leisure activities may take place in relative privacy where individuals with disabilities are not on "show". Most sports activities involve people watching participants and may give rise to people with disabilities having a concern for becoming anxious. Anxiety may become evident when people lack confidence in their skills, have a low self image, and/or feeling uncomfortable when surrounded by strangers as was the case for people with disabilities in Henderson's (1995) study. The passive leisure and sports activity domains were also unrelated in reference to subjects having a concern for sometimes not being able to physically cope with aspects of an activity. Physical aspects of sports activities such as tennis and swimming may be difficult for some people with disabilities to cope with, whereas such difficulties may not be experienced in relation to passive leisure activities.

The outdoor recreation and sports activity domains were consistently related based on constraint statements. Outdoor recreation and sports activities generally require greater physical agility than passive leisure activities and may explain why the two domains were related. The passive leisure domain appeared to be different from the outdoor recreation and sports activity domains in terms of issues that involved being observed and physical abilities. People with disabilities may be more likely to choose to do activities which do not put them in situations where other people may observe them or where they would be uncertain about their abilities.

Passive leisure activities may be more attractive to people with disabilities who have concerns for being observed and physical abilities as they can be done in private and may not be as physically challenging. People with disabilities may be able to negotiate these constraints if they know the people around them while doing an activity, knowing that there will be people available to assist them, and having prior knowledge of the activity.

Facilitators Not Related Across Domains

There were two facilitator items that did not produce relationships between passive leisure and outdoor recreation activities. The first of these was continuing with an activity because it was enjoyable. This finding suggested that because subjects may have continued with an activity from one domain because they enjoyed it did not mean that they would continue with an activity from the other domain for the same reason. People with disabilities may find it easier to access passive leisure activities such as going to the movies and watching television compared to tramping or skiing. A person who enjoys an outdoor activity may not have access to the activity because of their disability whereas they may have greater access to passive leisure activities. This finding suggested that the type of domain may facilitate access to activities subjects enjoyed.

Continuing with an activity because it was similar to what subjects used to do was the second facilitator not to produce a relationship between the passive leisure and outdoor recreation activity domains. People with disabilities may have greater access to passive leisure activities than outdoor recreation activities. Subjects may have been sports spectators or taken up skiing using a sled instead of playing sport or parallel skiing, especially if they wished to continue interests for active leisure activities as suggested by Dew et al. (1983). Subjects who continued with an outdoor activity because it was similar to what they used to do may not have had the same access to activities as those who continued with passive leisure activities.

There was no relationship between the passive leisure and sports activity domains based on becoming more confident through participating in an activity. Subjects may have considered that they would become more confident through participating in sports activity rather than a passive leisure activity. Confidence may be gained by meeting the demands of challenging and physically demanding

activities such as sport (Kelly, 1990; Kraus, 1984) whereas passive activities may not provide opportunities to encourage the development of confidence.

Facilitator statements used in correlation analyses all produced relationships across outdoor recreation and sports activity domains. This finding is similar to that of constraints which suggested that outdoor recreation and sports activities may require greater physical agility than passive leisure, offering an explanation as to why the facilitators were related. Outdoor recreation and sports activities may not be as accessible for subjects as passive leisure activities were. Enjoyment, similarity, and confidence may have been dependent on how accessible the activities were. Passive leisure activities may be more accessible for people with disabilities than outdoor recreation and sports activities.

Constraints, Facilitators and the Relationship Between Most and Least Preferred Activities

A purpose of this study was to determine if the experience of constraints and facilitators to activities subjects had ranked #1 (most preferred) were related to the constraints and facilitators to activities subjects had ranked #5 (least preferred) within each activity domain.

Constraints

Most constraints to activities subjects most preferred were related to the activities they least preferred across the three leisure domains. The implications of this finding are that regardless of whether subjects most or least preferred an activity, the experience of constraints were similar. There was no relationship between passive leisure activities subjects most and least preferred based on becoming anxious if other people were watching them. One interpretation may be people become anxious if being watched while doing the activity they least preferred whereas anxiety may have not been a concern in relation to the activity they most preferred. People may form preferences for passive leisure activities that do not subject them to being observed. Passive activities such as reading and watching television may be preferred to going to the movies or sports spectating.

No relationships between sports activities most and least preferred were produced based on subjects reporting that they would not consider an activity to be appropriate if they could not physically manage it and sometimes not being able to physically cope with aspects of an activity. People with disabilities may not develop interests for activities they know they would either not be able to physically manage or sometimes experience difficulties with aspects of an activity. Activities such as running and tennis may present physical challenges that many subjects may have been unable to meet whereas swimming, bowls, and pool may have been more manageable. Preferring a sports activity that is physically manageable may also allow a person to feel more confident, less anxious, and more in control of the situation. People who have attempted sports activities may be more likely to report not being able to manage or sometimes not being able to physically cope with certain aspects, however, people who have not attempted activities may have a high perception of these constraints. The converse may also be true based on the literature reviewed for the present study. People may be more likely to form preferences for sports activities they know that they will be able to physically manage rather than activities they are uncertain about.

All constraint statements produced moderate relationships between outdoor recreation activities subjects most and least preferred. The experience of constraints to activities subjects most preferred were related to the experience of the same constraints to activities they least preferred, a finding that suggested constraints may not influence preferences for activities within the outdoor recreation domain as there may not be a lot of variation in the requirements of different outdoor recreation activities.

For people with disabilities, constraints to outdoor recreation activities may either be able to be dealt with or not, regardless of activity, whereas concerns about being observed while participating in a passive leisure activity and the physical characteristics of sports activities may be related to preference formation.

Facilitators

There were no relationships between activities subjects most preferred and least preferred within the passive leisure, outdoor recreation, and sports activity domains based on continuing with an activity because it was enjoyable. People may

develop interests for activities that they find enjoyable rather than ones that are not enjoyable. An interpretation of this result may be people may have continued with the activities they most preferred because they enjoyed them whereas the enjoyment of an activity may not have been an issue in relation to activities subjects least preferred. Enjoyment of an activity may facilitate the involvement of people with disabilities in passive leisure, outdoor recreation, and sports activities.

There were no relationships between both passive leisure activities and between sports activities subjects most preferred and least preferred based on continuing with an activity because it was similar to previous involvement. People with disabilities may prefer activities that are similar to what they used to do because they may know that they could cope with the activity or because their abilities may have changed but they still prefer to do closely related activities.

People with disabilities may form preferences for activities they think they will be able to manage. There were no relationships between the passive leisure activities subjects most and least preferred and between the sports activities subjects most and least preferred based on choosing to do an activity because it was manageable.

Not being self-conscious if familiar with an activity did not produce a relationship between activities subjects most and least preferred within the outdoor recreation activity domain. This finding may be interpreted as people not being self-conscious in relation to the activity they most preferred because they may have been familiar with it whereas people may not have been familiar with the activity they least preferred. People may form preferences for outdoor recreation activities with which they are familiar.

Sports activities subjects most and least preferred were not related based on subjects preferring to remain independent in an activity. One interpretation could be that subjects may have wished to remain independent in the activity they most preferred whereas independence may not have been a concern in relation to the activity they least preferred. People with disabilities may form preferences for sports activities in which they are able to remain independent.

Preferring to do an activity with people subjects knew did not produce a relationship between sports activities subjects most and least preferred. An interpretation of this finding may be that subjects wished to do activities they most

preferred with people they knew whereas they may not have wished to do the activity they least preferred with people they knew. An alternative interpretation may be that subjects did the sports activities they liked alone, whereas they may have rather done the activity they least preferred in the company of friends to make the activity more fun.

For people with disabilities, enjoying an activity may be related to preference formation, regardless of activity domain. Concerns for the familiarity of an activity may be related to preferences for outdoor recreation activities whereas similarity and manageability may be related to preferences for passive leisure and sports activities. Remaining independent and knowing people may also facilitate access to sports activities.

Constraints and facilitators were least likely to make a difference in people's preferences for outdoor recreation activities as activities subjects most preferred were related to the activities they least preferred based on all constraint items and the majority of facilitator items. Constraints and facilitators were most likely to be related to subjects' preferences for passive leisure and sports activities as not all activities subjects preferred were related to the activities they least preferred within domains based on constraint and facilitator items. The sports activity domain indicated fewer relationships than the passive leisure domain.

Methodological Issues

There were aspects of this study which may have limited the nature of the data collected. This section of the discussion focuses on aspects of the method used which the researcher recognises may have shaped the results.

A number of steps were taken to improve the reliability of the current study. The questionnaire was split into three booklets according to leisure domain, allowing subjects to focus on one activity domain at a time. Subjects were required to respond to positively and negatively framed statements in an attempt to reduce response habituation. The order of booklets sent varied, acting to counterbalance any order effects associated with completion. Instructions to subjects were clear and concise. If for any reason something was not fully understood, subjects were able to contact

their local Workbridge centre or the researcher directly for further clarification. Workbridge centre staff had been informed about the survey.

The order in which booklets were completed could have influenced the results. Subjects may not have completed questionnaires in the order they were presented meaning that order effects may not have been counterbalanced. Subjects could have completed booklets during different sessions, possibly resulting in different responses being given due to factors such as tiredness, having to rush, or boredom.

Other forms of measurement error may have also affected the study as subjects may have become tired or bored. The questionnaire was split into three booklets, each booklet fielding responses in relation to passive leisure, outdoor recreation, and sports activity domains, in the attempt to minimise such effect. The order in which booklets were sent to subjects varied in an attempt to improve the reliability of the current study. The passive leisure booklet included questions about general facilitators to leisure and the sports activity booklet included a section on intrapersonal constraints and facilitators to employment and job training. Questionnaires yielding the lowest return rate (29%) began with the sports and employment booklet. This booklet was the largest of the three and may have discouraged subjects from completing the questionnaire because they were presented with the largest booklet first. Some subjects may have filled out one booklet at a time. Although this may have caused problems with reliability, subjects were advised to complete the questionnaire this way because the benefits outweighed the costs given that the population had physical impairments and may have found it easier to complete the questionnaire in this manner.

Steps were taken to improve the content validity of this study. A pilot study was conducted which provided the basis of question design for the current study. Because subjects were required to respond to predetermined statements with fixed choices, these statements had to reflect real issues. The issues were highlighted in the literature and the pilot study. A review of others methods was also conducted in order to determine what had and had not worked in the past. The questionnaire was pretested among colleagues at Lincoln University and people who had physical disabilities at the Canterbury Branch of Parafed for face validity.

Despite actions taken to improve the reliability and validity of the survey used in the present study, some statements used created problems. The inclusion of statements regarding moral beliefs and personal values may not have been entirely appropriate given the nature of the activities included in this study. Both statements were scored low in relation to all activities suggesting these issues were not concerns relating to activities included in the present study.

The facilitator statement "I would continue with this activity because I enjoy it" presented interpretation difficulties as there was uncertainty to whether it was participation or enjoyment subjects agreed/disagreed with. Another statement, "I would prefer this activity if it was not too competitive" may have caused confusion as this statement may not have seemed applicable to all activities. This statement was included as it allowed the researcher to determine associations and relationships across domains based on the statement.

Finally, the researcher attempted to improve the construct validity of the measure used in the present study by having subjects focus on statements related to specific activities, something that had been suggested by Jackson (1994). However, the limited number of activities in the present study created problems. Subjects may have been unfamiliar with many of the activities and based their responses to constraint and facilitator statements on activities they did not have a full appreciation of.

Activities included in the passive leisure and sports activity domains were not truly representative. For example, going to the movies and sports spectating may not always be considered to be passive leisure activities and playing pool/snooker/billiards may not always be considered as sports activities. People with disabilities may expend large amounts of energy going to the movies or sports spectating and not consider these activities to be passive. Many people with disabilities may swim for enjoyment or therapy but not competitively.

Systematic measurement errors such as social desirability effects (when subjects do not express their true feelings) and acquiescence effects (where subjects are more likely to agree than to disagree with statements irrespective of their content), may have influenced the validity of this study.

The problems with measurement and data collection limit the findings of the present study described in this chapter.

Chapter VI: Conclusions

This study addressed five research questions: 1) Is type of activity associated with level of constraint or facilitator within each domain of leisure?; 2) Are type of activity, previous involvement, and type of disability associated with level of constraint within each domain of leisure?; 3) Are liking an activity, previous involvement, and type of disability associated with level of facilitator within each leisure domain?; 4) In general, is the experience of constraints or facilitators in one activity domain related to another, regardless of activity type; and 5) In general, is the experience of constraints or facilitators to people's most preferred activity related to the constraints or facilitators for their least preferred activity within each domain of leisure? Conclusions given only apply to the subjects who were involved in the present study and the experience of intrapersonal constraints and facilitators may be different for other people who have physical disabilities.

1) Is type of activity associated with level of constraint or facilitator within each domain of leisure?

In general, the type of activity was not associated with level of constraint or facilitator within each domain of leisure, suggesting that domains are homogeneous. The passive leisure domain produced the greatest number of differences between activity types within domains for constraints and facilitators. This result indicated that the experience of intrapersonal constraints and facilitators depended on the type of passive leisure activity whereas the type of activity generally did not matter for outdoor recreation and sports activities.

By the very nature of recreation programmes, outdoor recreation and sports activities tend to be provided or involve some organisation, whereas passive leisure activities may be more individualistic. Outdoor recreation and sports activities often require specialised equipment and coordination of many people. Therefore, recreation professionals may be able to reduce the constraints faced by people with disabilities in a number of activities by recognising the constraints that are common within the outdoor recreation and sports activity domains. Within the passive leisure domain the nature of intervention is more dependent on activity. For example,

assurance may need to be given to people with disabilities that they would not be judged on their performance when playing passive games, and that their physical appearance would be okay when sports spectating. Recreation professionals may also have to ensure people with disabilities are able to remain as independent as possible when reading and have friends to accompany them when going to the movies or playing passive games. Although there were differences between activities based on constraints and facilitator statements, generally, passive leisure activities were more similar than different in terms of constraints and facilitators.

2) Are liking an activity, previous involvement, and type of disability associated with level of constraint within each leisure domain?

This question was analysed in relation to activities subjects most preferred (ranked #1). Subjects who liked the passive leisure and sports activities they ranked #1 were less likely to become anxious if other people were watching them and were less likely to report shyness restricting them when they were younger in relation to passive leisure activities. With regard to outdoor recreation activities, subjects were less likely to have concerns for their appearance if they liked the activity. People who liked the activity they ranked #1 may have become more concerned with the activity itself rather than things like appearance and being watched. Alternatively, liking an activity may indicate that subjects were confident in themselves and may have had a higher self-esteem than others which meant that the constraints mentioned were not major issues for them as suggested by Raymore et al. (1994).

Subjects who liked the sports activity they ranked #1 were more likely to report that they would not do the activity if it compromised their values. Although associated, personal values may not have been a suitable constraint to include in this study as it was consistently reported at low levels as well as not being applicable to all leisure activity types.

The reporting of constraints was found by Kay and Jackson (1991) and Shaw et al. (1991) to be more frequently associated with higher rather than lower participation. The present study however, found that more constraints were reported by those who had no previous involvement with the activities they ranked #1. Becoming depressed due to not being able to do certain things within a passive

leisure activity, sometimes being unable to cope with certain aspects of a passive leisure activity, and being restricted from participating in outdoor recreation activities by family stress were more likely to be reported by subjects who had less previous involvement than those who had more. Many of these subjects may not have known whether they could manage aspects of an activity if they had never tried the activity and may have found that their perception were incorrect if they had attempted activities.

Subjects who had spinal cord injuries were more likely than those with cerebral palsy to become anxious if other people were watching them. These subjects may have been concerned about their body-image or negative reactions from others, especially since they may not have had such concerns before acquiring their disabilities. Despite a heavy emphasis in the literature, subjects who had spinal cord injuries did not report high levels of depression suggesting that the leisure preferences of subjects who had spinal cord injuries were not associated with concerns for becoming depressed.

3) Are liking an activity, previous involvement, and type of disability associated with level of facilitator within each leisure domain?

This question was analysed in relation to activities subjects most preferred (those ranked #1). People who like an activity may recognise more facilitators in relation to that activity than those who do not. Subjects who liked the passive leisure, outdoor recreation, and sports activities they ranked #1 were more likely to continue with these activities because they enjoyed them. Preferring to remain independent was more likely to be reported by subjects who liked the outdoor recreation and sports activities they ranked #1. Subjects who liked the passive leisure activities they ranked #1 were less likely to have become shy if they knew the people around them, while subjects who liked the outdoor recreation activity they ranked #1 were more likely to become confident through participating in the activity, and were more likely to choose the activity because they could manage it. In relation to the sports activity ranked #1 subjects were less likely to prefer an activity if it was not competitive.

Subjects who had less previous involvement in the sports activity they ranked #1 were less likely to continue with the activity because they enjoyed it and were less likely to choose to do the activity because they could manage it.

Type of disability was associated with choosing to do an activity because of being unable to do the things they used to. Subjects who had spinal cord injuries were more likely to report that they would do the passive leisure, outdoor recreation, and sports activities they ranked #1 because they were unable to do the things they used to. In relation to outdoor recreation activities ranked #1, subjects with spinal cord injuries were more likely to prefer remaining independent.

These findings suggested that, in general, people who liked the activity they ranked #1 tended to report fewer constraints and more facilitators to leisure activities that those who did not like the activity they ranked #1. Having no previous involvement was related to subjects' considering that they were unable to manage aspects of activities which may have caused them to become depressed and subjects with spinal cord injuries showed more of a concern for becoming anxious when being watched and were more likely to do activities they ranked #1 because they were unable to do the things they used to.

4) In general, is the experience of constraints or facilitators in one activity domain related to another, regardless of activity type?

The majority of constraint statements were related across the activity domains included in this study. All constraint statements relating to outdoor recreation and sports activities were related, indicating that the experience of constraints to activities subjects had ranked #1 in both domains were similar. The physical nature of activities in both domains (Kraus, 1994; Heywood et al., 1995) may offer a possible explanation as to why these domains were related.

The passive leisure and outdoor recreation activity domains were unrelated based on the manageability of an activity while anxiety resulting from being watched did not produce a relationship between the passive leisure and sports domains. Passive leisure activities may be inherently different from outdoor recreation and sports activities with regard to manageability and other people watching. Passive leisure activities may not present people who have disabilities with difficulties and

often occur in private, whereas outdoor recreation and sports activities may be more difficult and involve other people who may be watching.

Facilitators to activities ranked #1 by subjects showed similar trends to those of constraints in that most produced relationships between the three combinations of activity domains. The outdoor recreation and sports domains indicated that all facilitator statements were related between the two domains while continuing because of enjoyment and continuing because activity was similar to previous involvement did not produce relationships between the passive leisure and outdoor recreation domains. Confidence gained through participation did not produce a relationship between the passive leisure and sports activity domains. People may gain confidence through involvement in sport where they can challenge themselves, whereas passive leisure activities may not build confidence.

The fact that the majority of constraint and facilitator statements were related between activity domains indicates that the experiences of constraints and facilitators, whether they were high or low, were related to the experience of the same constraints and facilitators in other domains of leisure activity. Outdoor recreation and sports activity domains were closely related which suggested that the nature of activities within these domains may explain why constraints and facilitators were related. These results suggest that for the most part, constraints and facilitators are not activity specific, contrary to Jackson's (1994) contention that the relevance of constraints [and facilitators] may differ depending on type of activity.

5) In general, is the experience of constraints and facilitators in people's most preferred activity related to the constraints and facilitators in their least preferred activity within domains of leisure?

The experience of constraints and facilitators in subjects' most preferred activities were related to the constraints and facilitators in their least preferred activities within domains of leisure for the majority of items. All constraint statements and the majority of facilitator statements produced relationships between outdoor recreation activities subjects most and least preferred; this suggests that if a person had a constraint for something they preferred, that constraint also affected activities they did not prefer.

Concerns about being observed, enjoyment of activity, similarity to previous involvement, and manageability may be concerns influencing the preferences of people with disabilities in relation to passive leisure activities. Enjoyment of an activity and familiarity may influence preferences for outdoor recreation activities, and enjoyment of an activity, similarity, independence, and knowing people may influence preferences for sports activities.

Limitations of Study

There were a number of factors which may have limited this study, including the number and source of subjects used in the study, the length of the questionnaire used, the time of year the questionnaire was sent, and problems with some of the constraint and facilitator items included in the survey.

As Workbridge Inc., was the only agency able to provide access to contacts for subjects in this study, those involved were all listed with Workbridge as seeking employment or job training. Using the Workbridge database for possible subject contacts eliminated people with disabilities who had not sought the support of Workbridge or who were unable to work and consequently not listed with Workbridge. This limits the findings to people who had disabilities and who were seeking employment or job training through Workbridge. People with disabilities who were not listed with Workbridge may have had personal resources which allowed them to find employment and job training opportunities themselves. These people may have experienced different intrapersonal constraints and facilitators.

The Workbridge database included people who had various forms of paralysis with people who had spinal cord injuries. Because people with spinal cord injuries were one of the groups included in this study, the inclusion of people who had paralysis means that findings are not directly applicable to people with spinal cord injuries only. The researcher decided to include people with paralysis as the onset of paralysis later in life may result in the same or similar difficulties as experienced by people with spinal cord injuries.

The questionnaire consisted of three booklets. Although steps were taken to make it as easy as possible to complete, some people may have found it difficult or too long, although response rate was acceptable and respondents and non-respondents did not differ on demographic characteristics. Questionnaires were

mailed just prior to the 1995 Christmas holidays; although reminders were sent, the timing of the survey may have compromised the response rate.

Although a review of the literature and the pilot study suggested that peoples values and moral beliefs often act as intrapersonal constraints, their inclusion in this study may not have been appropriate as the activities to which subjects were required to respond may not have been related to personal values or moral beliefs. Caution should be exercised if using the variables in further constraints research.

Finally, analyses for research questions two through five treated activity domains as being homogeneous. This assumption was based on data from the small number of subjects in this study (N=147) and affects all conclusions.

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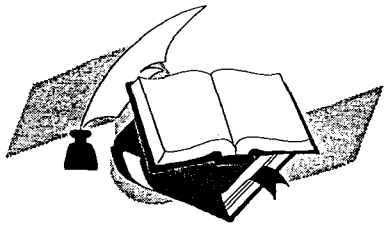
Appendices

WELCOME TO

BOOK 1:

FACILITATORS AND

PASSIVE LEISURE ACTIVITIES



THIS SECTION WILL TAKE YOU 20 MINUTES TO COMPLETE.

FACILITATORS TO LEISURE

This section aims to find out a bit about you as a person, as well as what helps you become interested in a leisure activity.

Please **mark** the **ONE** box which best indicates the extent to which you agree with each of the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I do not become anxious easily.				
My friends encourage and support my involvement in leisure activities.				
I am a competent person.				
I rarely feel self-conscious.				
Shyness is not a problem for me.				
I am willing to try new activities.				
I will participate in an activity regardless of what my family thinks.				
I am a sociable person.				
My family support my involvement in the leisure activities I choose to do.				
I am not shy when I know the people I am with.				
My moral beliefs are important in deciding whether or not to do an activity.				

OVER

PASSIVE LEISURE ACTIVITIES

Please rank the following 5 activities (#1 to #5) in order of preference, **#1 = most preferred activity.**

YOUR ANSWERS ARE IMPORTANT EVEN IF YOU'VE NEVER DONE THESE ACTIVITIES

#_____ Going to the movies.
#_____ Reading.
#_____ Playing passive games (e.g., cards, board games).
#_____ Being a spectator at sporting events.
#_____ Watching T.V.

Do you participate in the activity you **ranked #1?** Yes ☐

No ☐

Rate how much you like this activity:

☐ Strongly Dislike ☐ Dislike ☐ Neutral ☐ Like ☐ Like very much

People generally do this activity:

All Year Round ☐ Winter ☐ Summer ☐

OVER

On average (during the appropriate season), I participate in this activity:

- ☐ Daily
- ☐ 2-6 times per week
- ☐ Once per week
- ☐ 2-3 times per month
- ☐ Once per month
- ☐ Less than once per month (please specify)

_____

_____

- ☐ I have never participated in this activity

On average, EACH TIME I participate in this activity for:
(T.V. Watchers & Readers: *Do not total your whole day's viewing/reading, but how long you watch or read PER SESSION)*

- ☐ I have never participated in this activity.
- ☐ 1 hour or less
- ☐ Between 1 & 2 hours
- ☐ Between 2 & 3 hours
- ☐ Between 3 & 4 hours
- ☐ Between 4 & 5 hours
- ☐ Half a day
- ☐ A whole day
- ☐ Two days
- ☐ A Week
- ☐ Longer than a week (please specify)

_____

_____

_____

OVER

Based on your KNOWLEDGE OR IMPRESSIONS of the passive leisure activity you **ranked #1**, please **mark** the **ONE** box which best indicates your agreement with each of the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.				
I would prefer to remain independent in this activity.				
I would be less likely to become shy if I knew the people around me while I did this activity.				
I would feel uncomfortable if I thought people were judging me on my performance in this activity.				
It would be important that I thought my physical appearance was okay while I did this activity.				
I would not be self-conscious if I was familiar with this activity.				
Work related stress would restrict my participation in this activity.				
This activity would not be appropriate for me if I could not physically manage it.				
My physical appearance could cause me to feel depressed while I did this activity.				
Not being able to do certain things within this activity could cause me to feel depressed.				
I would not like this activity if I thought I could be injured.				
I would prefer this activity if it was not too competitive.				
I would be unlikely to do this activity if it were against my moral beliefs.				
I would become more confident in myself through participating in this activity.				
I continue with this activity because I enjoy it.				

OVER

Still thinking about the passive leisure activity you **ranked #1.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

OVER

Remind me of the passive leisure activity you **ranked #5**. _____

Do you participate in the activity you **ranked #5**? Yes ☐

No ☐

Rate how much you like this activity:

☐	☐	☐	☐	☐
Strongly Dislike	Dislike	Neutral	Like	Like very much

Based on your KNOWLEDGE OR IMPRESSIONS of the passive leisure activity you **ranked #5**, please **mark** the **ONE** box which best indicates your agreement with the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.				
I would prefer to remain independent in this activity.				
I would be less likely to become shy if I knew the people around me while I did this activity.				
I would feel uncomfortable if I thought people were judging me on my performance in this activity.				
It would be important that I thought my physical appearance was okay while I did this activity.				
I would not be self-conscious if I was familiar with this activity.				
Work related stress would restrict my participation in this activity.				
This activity would not be appropriate for me if I could not physically manage it.				
My physical appearance could cause me to feel depressed while I did this activity.				
Not being able to do certain things within this activity could cause me to feel depressed.				

OVER

Still thinking about the passive leisure activity you **ranked #5,**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would not like this activity if I thought I could be injured.				
I would prefer this activity if it was not too competitive.				
I would be unlikely to do this activity if it were against my moral beliefs.				
I would become more confident in myself through participating in this activity.				
I continue with this activity because I enjoy it.				
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

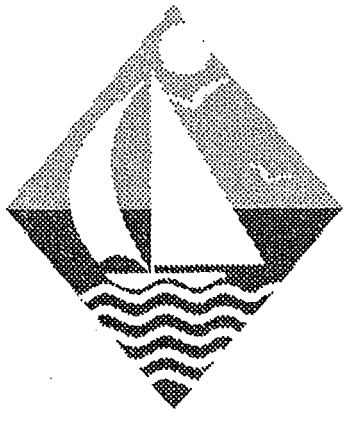
Do not send back until books 2 and 3 are completed.

WELCOME TO

BOOK 2:

OUTDOOR

RECREATION ACTIVITIES



THIS SECTION WILL TAKE YOU 15 MINUTES TO COMPLETE.

OUTDOOR RECREATION ACTIVITIES

Please rank the following 5 activities (**#1 to #5**) in order of preference, **#1 = most preferred activity.**

YOUR ANSWERS ARE IMPORTANT EVEN IF YOU'VE NEVER DONE THESE ACTIVITIES

#_____ Tramping.
#_____ Horseriding.
#_____ Fishing.
#_____ Skiing.
#_____ Rockclimbing.

Do you participate in the activity you **ranked #1?** Yes ☐

No ☐

Rate how much you like this activity:

☐ Strongly Dislike ☐ Dislike ☐ Neutral ☐ Like ☐ Like very much

People generally do this activity:

All Year Round ☐ Winter ☐ Summer ☐

OVER

On average (during the appropriate season), I participate in this activity:

- ☐ Daily
- ☐ 2-6 times per week
- ☐ Once per week
- ☐ 2-3 times per month
- ☐ Once per month
- ☐ Less than once per month (please specify)

  _____

  _____

- ☐ I have never participated in this activity

On average, EACH TIME I participate in this activity for:

- ☐ I have never participated in this activity
- ☐ 1 hour or less
- ☐ Between 1 & 2 hours
- ☐ Between 2 & 3 hours
- ☐ Between 3 & 4 hours
- ☐ Between 4 & 5 hours
- ☐ Half a day
- ☐ A whole day
- ☐ Two days
- ☐ A week
- ☐ Longer than a week (please specify)

  _____

  _____

  _____

OVER

Based on your KNOWLEDGE OR IMPRESSIONS of the outdoor recreation activity you **ranked #1**, please **mark** the **ONE** box which best indicates your agreement with each of the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.	☐	☐	☐	☐
I would prefer to remain independent in this activity.	☐	☐	☐	☐
I would be less likely to become shy if I knew the people around me while I did this activity.	☐	☐	☐	☐
I would feel uncomfortable if I thought people were judging me on my performance in this activity.	☐	☐	☐	☐
It would be important that I thought my physical appearance was okay while I did this activity.	☐	☐	☐	☐
I would not be self-conscious if I was familiar with this activity.	☐	☐	☐	☐
Work related stress would restrict my participation in this activity.	☐	☐	☐	☐
This activity would not be appropriate for me if I could not physically manage it.	☐	☐	☐	☐
My physical appearance could cause me to feel depressed while I did this activity.	☐	☐	☐	☐
Not being able to do certain things within this activity could cause me to feel depressed.	☐	☐	☐	☐
I would not like this activity if I thought I could be injured.	☐	☐	☐	☐
I would prefer this activity if it was not too competitive.	☐	☐	☐	☐
I would be unlikely to do this activity if it were against my moral beliefs.	☐	☐	☐	☐
I would become more confident in myself through participating in this activity.	☐	☐	☐	☐
I continue with this activity because I enjoy it.	☐	☐	☐	☐

OVER

Still thinking about the outdoor recreation activity you **ranked #1.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

OVER

Remind me of the outdoor recreation activity you **ranked #5**. _____

Do you participate in the activity you **ranked #5**? Yes ☐

No ☐

Rate how much you like this activity:

☐ Strongly Dislike ☐ Dislike ☐ Neutral ☐ Like ☐ Like very much

Based on your KNOWLEDGE OR IMPRESSIONS of the outdoor recreation activity you **ranked #5**, please **mark** the **ONE** box which best indicates your agreement with the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.	☐	☐	☐	☐
I would prefer to remain independent in this activity.	☐	☐	☐	☐
I would be less likely to become shy if I knew the people around me while I did this activity.	☐	☐	☐	☐
I would feel uncomfortable if I thought people were judging me on my performance in this activity.	☐	☐	☐	☐
It would be important that I thought my physical appearance was okay while I did this activity.	☐	☐	☐	☐
I would not be self-conscious if I was familiar with this activity.	☐	☐	☐	☐
Work related stress would restrict my participation in this activity.	☐	☐	☐	☐
This activity would not be appropriate for me if I could not physically manage it.	☐	☐	☐	☐
My physical appearance could cause me to feel depressed while I did this activity.	☐	☐	☐	☐
Not being able to do certain things within this activity could cause me to feel depressed.	☐	☐	☐	☐

OVER

Outdoor Recreation Activities continued

Still thinking about the outdoor recreation activity you **ranked #5.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would not like this activity if I thought I could be injured.				
I would prefer this activity if it was not too competitive.				
I would be unlikely to do this activity if it were against my moral beliefs.				
I would become more confident in myself through participating in this activity.				
I continue with this activity because I enjoy it.				
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

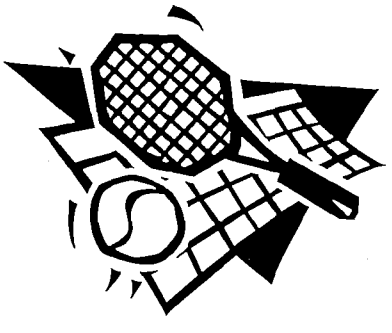
Do not send back until books 1 and 3 are completed.

WELCOME TO

BOOK 3:

SPORTS ACTIVITIES

AND EMPLOYMENT



THIS SECTION WILL TAKE YOU 25 MINUTES TO COMPLETE.

SPORTS ACTIVITIES
(both competitive and non-competitive)

Please rank the following 5 activities (**#1 to #5**) in order of preference, **#1 = most preferred activity.**

YOUR ANSWERS ARE
IMPORTANT EVEN IF
YOU'VE NEVER DONE
THESE ACTIVITIES

#_____ Tennis.
#_____ Swimming.
#_____ Running.
#_____ Bowls.
#_____ Pool/Snooker/Billiards.

Do you participate in the activity you **ranked #1?** Yes ☐

No ☐

Rate how much you like this activity:

☐ ☐ ☐ ☐ ☐

Strongly Dislike Dislike Neutral Like Like very much

People generally do this activity:

All Year Round ☐ Winter ☐ Summer ☐

OVER

On average (during the appropriate season), I participate in this activity:

- ☐ Daily
- ☐ 2-6 times per week
- ☐ Once per week
- ☐ 2-3 times per month
- ☐ Once per month
- ☐ Less than once per month (please specify) _____
- ☐ I have never participated in this activity

On average, EACH TIME I participate in this activity for:

- ☐ I have never participated in this activity
- ☐ 1 hour or less
- ☐ Between 1 & 2 hours
- ☐ Between 2 & 3 hours
- ☐ Between 3 & 4 hours
- ☐ Between 4 & 5 hours
- ☐ Half a day
- ☐ A whole day
- ☐ Two days
- ☐ A week
- ☐ Longer than a week (plese specify) _____

OVER

Based on your KNOWLEDGE OR IMPRESSIONS of the sports activity you **ranked #1**, please **mark** the **ONE** box which best indicates your agreement with each of the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.				
I would prefer to remain independent in this activity.				
I would be less likely to become shy if I knew the people around me while I did this activity.				
I would feel uncomfortable if I thought people were judging me on my performance in this activity.				
It would be important that I thought my physical appearance was okay while I did this activity.				
I would not be self-conscious if I was familiar with this activity.				
Work related stress would restrict my participation in this activity.				
This activity would not be appropriate for me if I could not physically manage it.				
My physical appearance could cause me to feel depressed while I did this activity.				
Not being able to do certain things within this activity could cause me to feel depressed.				
I would not like this activity if I thought I could be injured.				
I would prefer this activity if it was not too competitive.				
I would be unlikely to do this activity if it were against my moral beliefs.				
I would become more confident in myself through participating in this activity.				
I continue with this activity because I enjoy it.				

OVER

Sports Activities continued

Still thinking about the sports activity you **ranked #1.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

OVER

Remind me of the sports activity you **ranked #5**. _____

Do you participate in the activity you **ranked #5**? Yes ☐

No ☐

Rate how much you like this activity:

☐	☐	☐	☐	☐
Strongly Dislike	Dislike	Neutral	Like	Like very much

Based on your KNOWLEDGE OR IMPRESSIONS of the sports activity you **ranked #5**, please **mark** the **ONE** box which best indicates your agreement with the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would become anxious if people were watching me do this activity.	☐	☐	☐	☐
I would prefer to remain independent in this activity.	☐	☐	☐	☐
I would be less likely to become shy if I knew the people around me while I did this activity.	☐	☐	☐	☐
I would feel uncomfortable if I thought people were judging me on my performance in this activity.	☐	☐	☐	☐
It would be important that I thought my physical appearance was okay while I did this activity.	☐	☐	☐	☐
I would not be self-conscious if I was familiar with this activity.	☐	☐	☐	☐
Work related stress would restrict my participation in this activity.	☐	☐	☐	☐
This activity would not be appropriate for me if I could not physically manage it.	☐	☐	☐	☐
My physical appearance could cause me to feel depressed while I did this activity.	☐	☐	☐	☐
Not being able to do certain things within this activity could cause me to feel depressed.	☐	☐	☐	☐

OVER

Still thinking about the sports activity you **ranked #5.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I would not like this activity if I thought I could be injured.				
I would prefer this activity if it was not too competitive.				
I would be unlikely to do this activity if it were against my moral beliefs.				
I would become more confident in myself through participating in this activity.				
I continue with this activity because I enjoy it.				
I would do this activity because I am unable to do the things I used to.				
I would feel less anxious after doing this activity for the first time.				
I would avoid this activity if it compromised my values.				
Shyness would have been more likely to stop me from doing this activity when I was younger.				
I would continue with this activity because it is similar to what I used to do when I was younger.				
I would choose to do this activity because I can manage it.				
Sometimes I couldn't physically cope with certain aspects of this activity.				
Family related stress would restrict my participation in this activity.				
I would prefer to do this activity with people I know.				

OVER

EMPLOYMENT

Please respond to the following questions.

1) Do you currently have paid employment? Yes ☐

No ☐ **(GO TO QUESTION 4)**

2) If yes, is this employment: Full time ☐

Part time ☐

3) If currently employed, for how long have you had this job?

☐ Less than 1 year ☐ Between 2 & 3 years

☐ Between 1 & 2 years ☐ Longer than 3 years
(please specify) ____

(GO TO QUESTION 7)

4) If you are not currently employed, have you had paid work in the past? Yes ☐

No ☐

5) If you are not currently employed, are you seeking paid employment?

Yes ☐

No ☐ **(GO TO QUESTION 8)**

6) If yes, would you prefer this employment to be: Full time ☐

Part time ☐

7) Did Workbridge Inc., assist you with finding your current employment? Yes ☐

No ☐

OVER

8) Are you currently involved in any job training (unpaid work experience)?

Yes ☐

No ☐ **(GO TO QUESTION 11)**

9) Has Workbridge Inc., assisted you in getting job training opportunities? Yes ☐

No ☐

10) If currently undergoing job training, for how long has this training lasted?

☐ Less than 1 week

☐ Between 1 & 2 weeks

☐ Between 2 & 3 weeks

☐ Longer than 3 weeks
(please specify) ___

11) Do you require any type of job support? Yes ☐

No ☐ **(GO TO NEXT PAGE)**

12) If yes, what type of job support do you require?

☐ Job Coaching/Mentoring

☐ Interpreter services

☐ Training on the job

☐ Awareness training

☐ Physical support

☐ Equipment

☐ Wage subsidy

☐ Other (please specify)

_____

_____

_____

OVER

Please **mark** the **ONE** box which best indicates the extent to which you agree with each of the following statements in relation to your **current employment.** If not currently employed, please respond to the following statements with reference to your **past employment.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I become anxious when people are watching me do my work.				
I prefer to remain independent while I am working.				
I am less likely to become shy if I know the people around me while I am working.				
I feel uncomfortable if I think people are judging me on my work performance.				
It is important that I think my physical appearance is okay while I am working.				
I am not self-conscious if I am familiar with the work I am doing.				
Personal stress restricts the type of work I do.				
A job would not be appropriate for me if I could not physically manage it.				
My physical appearance can cause me to feel depressed while I work.				
Not being able to do certain things within a job can cause me to feel depressed.				
I would not like a job if I thought I could be injured.				
I would be unlikely to do a job if it were against my moral beliefs.				
I become more confident in myself through doing this job.				
I continue with a job if I enjoy it.				

OVER

Employment section continued

Still thinking about your **current employment** or **past employment**.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I do this job now because I am unable to do the things I used to.				
I felt less anxious after doing this job for the first time.				
I would avoid a job if it compromised my values.				
Shyness was more likely to stop me from doing this job when I was younger.				
I continue with this job because it is similar to what I used to do when I was younger.				
I choose to do this job because I can manage it.				
Sometimes I can't physically cope with certain aspects of this job.				
Family related stress restricts my involvement in this job.				
I prefer to do this job with people I know.				

OVER

Please **mark** the **ONE** box which best indicates the extent to which you agree with each of the following statements in relation to your **current job training.** If not currently involved in job training, please respond to the following statements with reference to your **past job training.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I become anxious when people are watching me do my job training.				
I prefer to remain independent while I am job training.				
I am less likely to become shy if I know the people around me while I am job training.				
I feel uncomfortable if I think people are judging me on my training performance.				
It is important that I think my physical appearance is okay while I am job training.				
I am not self-conscious if I am familiar with the training I am doing.				
Personal stress restricts the type of job training I do.				
Job training would not be appropriate for me if I could not physically manage it.				
My physical appearance can cause me to feel depressed while I am job training.				
Not being able to do certain things within a job can cause me to feel depressed.				
I would not like job training if I thought I could be injured.				
I would be unlikely to do any job training if it were against my moral beliefs.				
I become more confident in myself through doing job training.				
I continue with job training if I enjoy it.				

OVER

Employment section continued

Still thinking about your **current job training** or **past job training.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
I did this job training because I am unable to do the things I used to.	☐	☐	☐	☐
I felt less anxious after doing this job training for the first time.	☐	☐	☐	☐
I would avoid job training if it compromised my.values.	☐	☐	☐	☐
Shyness was more likely to stop me from doing job training when I was younger.	☐	☐	☐	☐
I continue with this job training because it is similar to what I used to do when I was younger.	☐	☐	☐	☐
I choose to do this job training because I can manage it.	☐	☐	☐	☐
Sometimes I can't physically cope with certain aspects of this job training.	☐	☐	☐	☐
Family related stress restricts my involvement in this job training.	☐	☐	☐	☐
I prefer to do this job training with people I know.	☐	☐	☐	☐

I had assistance with completing this questionnaire. ☐

I completed the questsionnaire myself. ☐

Thank you for taking the time to complete this questionnaire.

Please place bookss 1,2, and 3 in the prepaid envelope provided and mail today.

The results will be sent to you when this study has been completed.

WORKBRIDGE

Jobs and Training for People with Disabilities

Dear Jobseeker

Richard Buchanan is Masters student studying at Lincoln University. He is doing research in to the leisure and work experiences of people with disabilities. Workbridge was so impressed by Richard and the work that he was doing that we agreed to help him with his Masters Thesis. You can read more about Richard below.

As part of his studies Richard needs to ask you a few questions about your experiences while participating in leisure activities and while at work. Your contribution is extremely important as each and everyone one of us has different ideas about leisure and work.

The questionnaire has been split into three booklets so that you can complete each section one at a time. Richard has made the questionnaire as easy as possible for you to answer the questions. If you have any questions then please contact Richard at Lincoln University (03) 325 3820 or your local Workbridge centre.

Thank you very much for taking the time to answer these questions. The results will be valuable not only to Richard, but also to Workbridge and people with disabilities.

Yours faithfully

Richard Buchanan
Lincoln University

Steve Lavery
Marketing Manager
Workbridge Inc.

About Richard Buchanan - the Researcher

Richard Buchanan is a 28 year old student completing his Masters Degree in Parks, Recreation and Tourism Management at Lincoln University. His specialist area is leisure for people with physical disabilities. Having a physical disability himself (Cerebral Palsy) Richard is in a strong position to understand the difficulties facing people with physical disabilities in their daily life.

His research builds on a study conducted jointly by Workbridge and the Hillary Commission during 1994. He is interested in finding out what it is about people with physical disabilities that influences their preferences or interests for some leisure activities over others.

Richard already has an Honours Degree in Parks, Recreation and Tourism Management and has many leisure interests including tramping, skiing and kayaking.

WORKBRIDGE

Jobs and Training for People with Disabilities

22 December, 1995

Dear Jobseeker

You will recall that you were sent a questionnaire two weeks ago asking you about different leisure activities in which you may participate. As yet, we have not got your questionnaire back and would appreciate it if you could complete it by 5 January and return it in the prepaid envelope provided. Your contribution to this study is very important. Everyone has different ideas about leisure and your ideas are very useful for this study.

We appreciate that this is a very busy time for you but encourage you to take the time required to complete the questionnaire as the results will be of great benefit to people with disabilities. The holiday period may be an ideal chance for you to complete the questionnaire.

If for some reason you have misplaced your copy of the questionnaire and need another, please phone Richard Buchanan at Lincoln University (03) 325 3820.

Have a merry Christmas and a happy new year.

Yours sincerely,

Steve Lavery
Marketing Manager
Workbridge Inc.

Richard Buchanan
Lincoln University

WORKBRIDGE

Jobs and Training for People with Disabilities

22 January, 1996

Dear Jobseeker

You will recall that you were sent a questionnaire before Christmas asking you about different leisure activities in which you may participate. As yet, we have not received your completed questionnaire. We are very keen to find out about the things which influence your decisions to become involved in certain leisure activities and employment fields.

Your input is vital for the success of this research project which will improve the understanding of issues facing people with disabilities in leisure and employment. This understanding will help leisure agencies and Workbridge provide better services for people with disabilities.

We appreciate that the holiday period may have been very busy for you and that you may not have had time to complete the questionnaire sent to you. We hope that now the holiday period is over, you will have time to complete this questionnaire.

The questionnaire has been designed in such a way that makes it easy to complete. It comprises of three booklets and it is suggested that you complete one booklet at a time. If you have any questions then please contact your local Workbridge centre or Richard Buchanan at Lincoln University (03) 325 3820.

This questionnaire will remain completely confidential. Identification numbers on the questionnaire are for mailing purposes only. Your name will never be placed on the questionnaire.

We will let you know the results of this research once the study has been completed. Could you please return this questionnaire in the envelope provided by **5 February, 1996.**

Thank you for your assistance.

Yours sincerely,

Steve Lavery
Marketing Manager
Workbridge Inc.

R Buchanan
Richard Buchanan
Lincoln University

Marketing

Level 2 7 Winston Avenue Papanui PO Box 5397 Christchurch Phone (03) 352-0311 Fax (03) 354-0139